Pioneer *sound.vision.soul*

Service Manual

GM-7200M/XU/UC

ORDER NO.
CRT3521

MONO POWER AMPLIFIER

GM-7200M/XU/UC
GM-7200M/XU/EW
GM-7200M/XU/ES
GM-7200M/XU/CN

For details, refer to "Important Check Points for Good Servicing".

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ⓒ**PIONEER CORPORATION 2005**

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SAFETY INFORMATION

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

● **Service Precaution**

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety

Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments

To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts

Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning

For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws

To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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1. SPECIFICATIONS

● **GM-7200M/XU/UC**

Power source	14.4 V DC (10.8 — 15.1 V allowable)
Grounding system	Negative type
Current consumption	33.0 A (at continuous power, 4 Ω)
Backup current	3 mA or less
Average current drawn*	9.0 A (4 Ω for one channel)
	16.0 A (2 Ω for one channel)
Fuse	30 A × 2
Dimensions	300 (W) × 61 (H) × 336 (D) mm
	[12 in. (W) × 2-3/8 in. (H) × 1 ft. 1 in. (D)]
Weight	3.9 kg (8.6 lbs.) (Leads for wiring not included)
Maximum power output	500 W × 1 (4 Ω) / 800 W × 1 (2 Ω)
Continuous power output	250 W × 1 (at 14.4 V, 4 Ω, 20 — 240 Hz 0.5% THD)
	360 W × 1 (at 14.4 V, 2 Ω, 20 — 240 Hz 0.8% THD)
Load impedance	4 Ω (2 — 8 Ω allowable)
Frequency response	10 — 240 Hz (+0 dB, –3 dB)
Signal-to-noise ratio	100 dB (IHF-A network)
Distortion	0.03 % (10 W, 120 Hz)
Low pass filter	Cut off frequency: 40 — 240 Hz
	Cut off slope: –12 dB/oct
Bass boost	Frequency: 50 Hz
	Level: 0/6/12 dB
Gain control	RCA: 400 mV — 6.5 V
	Speaker: 1.6 — 26 V
Maximum input level / impedance	RCA: 6.5 V / 22 kΩ
	Speaker: 26 V / 40 kΩ

Power output	250 W RMS × 1 channel (4 Ω and ≦1 % THD+N)
	360 W RMS × 1 channel (2 Ω and ≦1 % THD+N, 100 Hz)
Signal-to-noise ratio	80 dBA (Reference: 1 W into 4 Ω)

Note:

- Specifications and the design are subject to possible modification without notice due to improvements.

***Average current drawn**

- The average current drawn is nearly the maximum current drawn by this unit when an audio signal is input. Use this value when working out total current drawn by multiple power amplifiers.

● GM-7200M/XU/EW

Power source	14.4 V DC (10.8 — 15.1 V allowable)
Grounding system	Negative type
Current consumption	33.0 A (at continuous power, 4 Ω)
Backup current	3 mA or less
Average current drawn*	9.0 A (4 Ω for one channel)
	16.0 A (2 Ω for one channel)
Fuse	30 A × 2
Dimensions	300 (W) × 61 (H) × 336 (D) mm
Weight	3.9 kg (Leads for wiring not included)
Maximum power output	500 W × 1 (4 Ω) / 800 W × 1 (2 Ω)
Continuous power output	250 W × 1 (at 14.4 V, 4 Ω, 20 — 240 Hz 0.5% THD)
	360 W × 1 (at 14.4 V, 2 Ω, 20 — 240 Hz 0.8% THD)
Continuous power output (DIN power)	380 W × 1 (4 Ω) (DIN45324, +B=14.4 V)
Load impedance	4 Ω (2 — 8 Ω allowable)
Frequency response	10 — 240 Hz (+0 dB, –3 dB)
Signal-to-noise ratio	100 dB (IEC-A network)
Distortion	0.03 % (10 W, 120 Hz)
Low pass filter	Cut off frequency: 40 — 240 Hz
	Cut off slope: –12 dB/oct
Bass Boost	Frequency: 50 Hz
	Level: 0/6/9/12 dB
Gain control	RCA: 400 mV — 6.5 V
	Speaker: 1.6 — 26 V
Maximum input level / impedance	RCA: 6.5 V / 22 kΩ
	Speaker: 26 V / 40 kΩ

Note:
- Specifications and the design are subject to possible modification without notice due to improvements.

***Average current drawn**
- The average current drawn is nearly the maximum current drawn by this unit when an audio signal is input. Use this value when working out total current drawn by multiple power amplifiers.

● GM-7200M/XU/ES

Power source	14.4 V DC (10.8 — 15.1 V allowable)
Grounding system	Negative type
Current consumption	33.0 A (at continuous power, 4 Ω)
Backup current	3 mA or less
Average current drawn*	9.0 A (4 Ω for one channel)
	16.0 A (2 Ω for one channel)
Fuse	30 A × 2
Dimensions	300 (W) × 61 (H) × 336 (D) mm
Weight	3.9 kg (Leads for wiring not included)
Maximum power output	500 W × 1 (4 Ω) / 800 W × 1 (2 Ω)
Continuous power output	250 W × 1 (at 14.4 V, 4 Ω, 20 — 240 Hz, 0.5% THD)
	360 W × 1 (at 14.4 V, 2 Ω, 20 — 240 Hz, 0.8% THD)
Load impedance	4 Ω (2 — 8 Ω allowable)
Frequency response	10 — 240 Hz (+0 dB, –3 dB)
Signal-to-noise ratio	100 dB (IEC-A network)
Distortion	0.03% (10 W, 120 Hz)
Low pass filter	Cut off frequency: 40 — 240 Hz
	Cut off slope: –12 dB/oct
Bass Boost	Frequency: 50 Hz
	Level: 0/6/12 dB
Gain control	RCA: 400 mV — 6.5 V
	Speaker: 1.6 — 26 V
Maximum input level / impedance	RCA: 6.5 V / 22 kΩ
	Speaker: 26 V / 40 kΩ

Note:
- Specifications and the design are subject to possible modification without notice due to improvements.

***Average current drawn**
- The average current drawn is nearly the maximum current drawn by this unit when an audio signal is input. Use this value when working out total current drawn by multiple power amplifiers.

● GM-7200M/XU/CN

电源	14.4V DC（容许范围10.8－15.1V）
接地系统	负极型
电流消耗	33.0A（连续供电时，4Ω）
Backup current	3 mA or less
平均消费电流*	9.0A（1声道为4Ω）
	16.0A（1声道为2Ω）
保险丝	30A × 2
尺寸	300（宽）× 61（高）× 336（深）mm
重量	3.9kg（不含导线）
最大输出功率	500W × 1（4Ω）/800W × 1（2Ω）
各声道连续输出功率	250W × 1（14.4V时，4Ω，20Hz－240Hz，0.5% THD）
	360W × 1（14.4V时，2Ω，20Hz－240Hz，0.8% THD）
负载阻抗	4Ω（容许范围2－8Ω）
频率响应	10－240Hz（+0dB，-3dB）
信号噪音比	100dB（IEC-A网络）
失真	0.03%（10W，120Hz）
低通滤波器	截止频率：40－240Hz
	截止斜率：-12dB/oct
低音提升	频率：50Hz
	电平：0/6/12dB
输入灵敏度	RCA：400mV－6.5V
	扬声器：1.6－26V
最大输入音压／阻抗	RCA：6.5V/22kΩ
	扬声器：26V/40kΩ

注：

- 因产品改进，规格和设计若有变更，恕不另行通知。

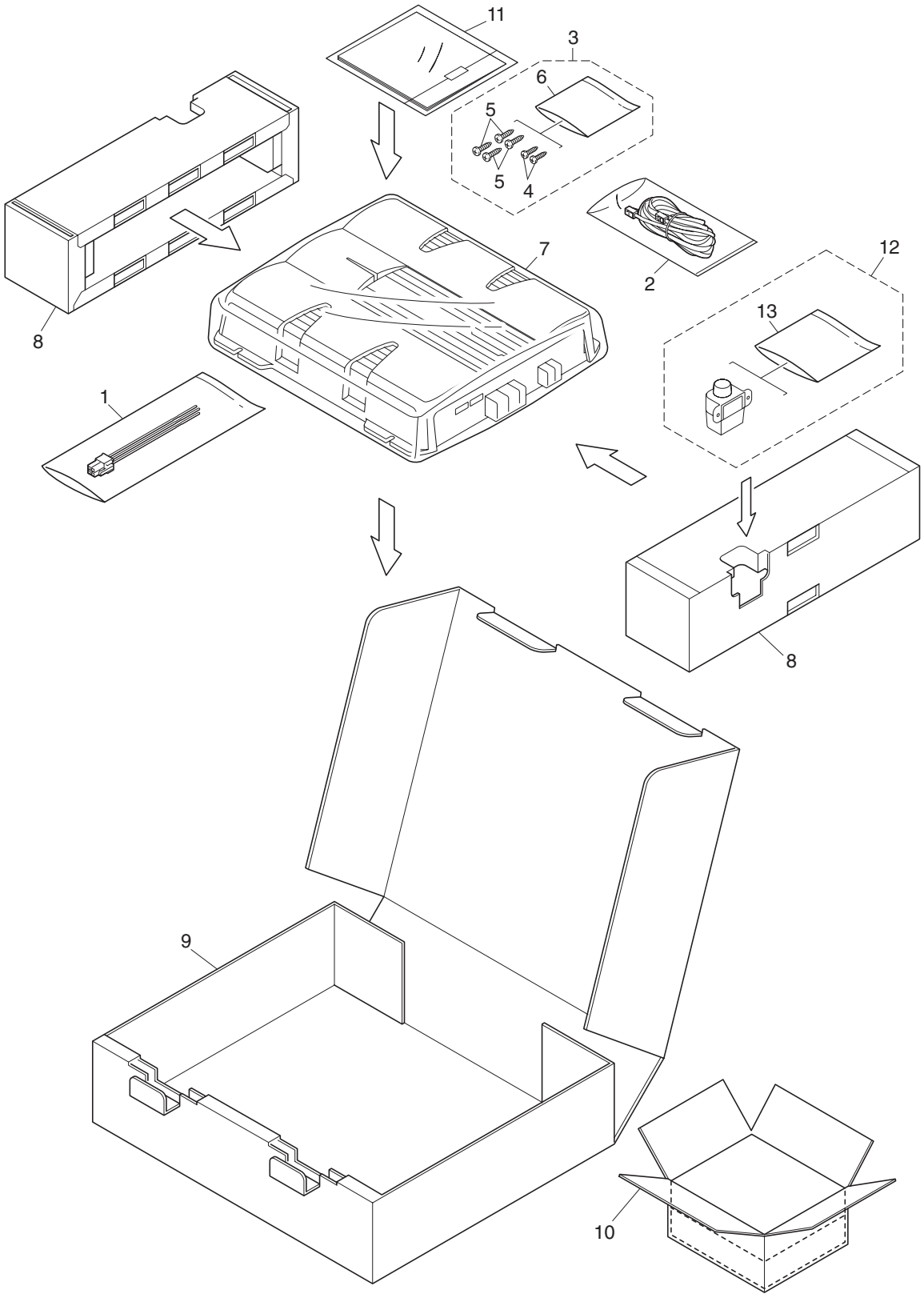
***平均消费电流**

- 本机的平均消费电流在输入音频信号时几乎等于最大牵引电流。计算多台功率放大器的总牵引电流时请使用该值。

2. EXPLODED VIEWS AND PARTS LIST

*NOTES : • Parts marked by " * " are generally unavailable because they are not in our Master Spare Parts List.*
• The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
• Screw adjacent to▽mark on the product are used for disassembly.
• For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions,apply as you think it appropriate.)

2.1 PACKING



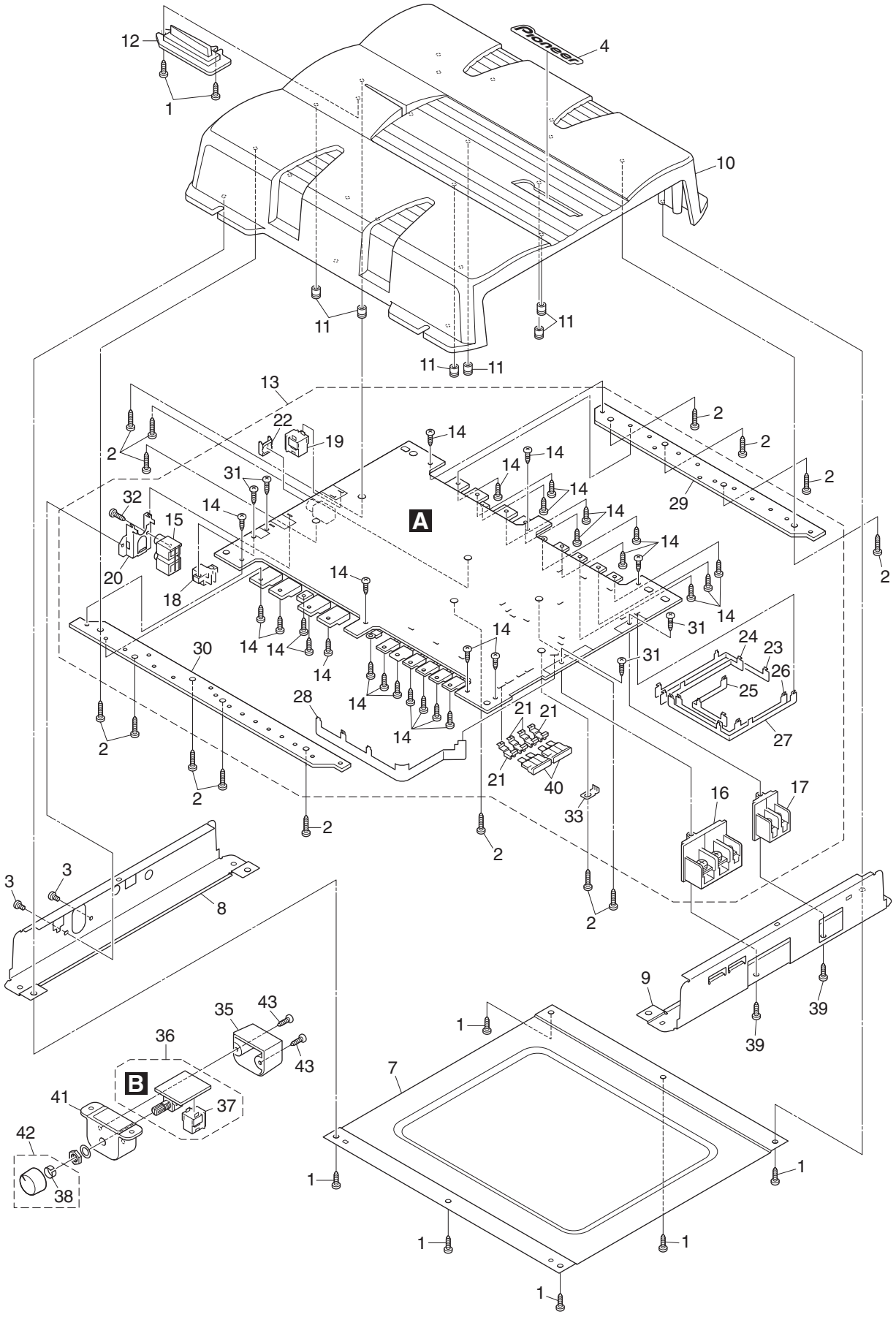
PACKING SECTION PARTS LIST

Mark	No.	Description	GM-7200M/XU/UC	GM-7200M/XU/EW	GM-7200M/XU/ES	GM-7200M/XU/CN
	1	Cord Assy	CDE7736	CDE7736	CDE7736	CDE7736
	2	Cord Assy	Not used	CDE7804	Not used	Not used
	3	Screw Assy	CEA5330	CEA5328	CEA5330	CEA5330
	4	Screw	Not used	BYC30P100FTB	Not used	Not used
	5	Screw	BYC40P180FTB	BYC40P180FTB	BYC40P180FTB	BYC40P180FTB
*	6	Polyethylene Sheet	CNM4338	CNM4338	CNM4338	CNM4338
	7	Polyethylene Bag	CEG1351	CEG1317	CEG1317	CEG1317
	8	Protector	CHP3066	CHP3066	CHP3066	CHP3066
	9	Carton	CHG5583	CHG5582	CHG5584	CHG5585
	10	Contain Box	CHL5583	CHL5582	CHL5584	CHL5585
	11-1	Polyethylene Bag	CEG1116	CEG1116	CEG1116	CEG1116
	11-2	Owner's Manual	CRD4006	CRD4005	CRD4007	CRB2105
*	11-3	Warranty Card	Not used	CRY1157	Not used	ARY7046
*	11-4	Card	ARY1048	Not used	Not used	Not used
	11-5	Owner's Manual	Not used	Not used	CRD4008	Not used
	12	Remote Control Assy	Not used	CXC4064	Not used	Not used
*	13	Polyethylene Bag	Not used	CEG1171	Not used	Not used

Owner's Manual

Part No.	Language
CRD4006	English, French, Spanish
CRD4005	English, Spanish, German, French, Italian, Dutch, Russian
CRD4007	English, Spanish
CRD4008	Arabic, Portuguese(B)
CRB2105	Traditional Chinese

2.2 EXTERIOR



(1) EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw(M3x8)	CBA2011
	2	Screw(M3x12)	CBA2012
	3	Screw	BSZ30P050FTB
*	4	Badge	CAH1946
	5	•••••	
	6	•••••	
	7	Case	CNB3199
	8	Panel	See Contrast table(2)
	9	Panel	CNB3205
	10	Heat Sink	See Contrast table(2)
	11	Spacer	CNV8256
	12	Lighting Conductor	CNV8692
	13	Amp Unit	See Contrast table(2)
	14	Screw(M3x8)	CBA2011
	15	Pin Jack(CN111)	CKB1068
	16	Terminal(CN853)	CKE1055
	17	Terminal(CN855)	CKE1057
	18	Socket(CN801)	CKM1463
	19	Connector(CN701)	See Contrast table(2)
	20	Holder	CND2456
	21	Terminal	CND2458
	22	Holder	CND2466
	23	Buss Bar	CND2467
	24	Buss Bar	CND2468
	25	Buss Bar	CND2469
	26	Buss Bar	CND2471
	27	Buss Bar	CND2472
	28	Buss Bar	CND2729
	29	Sub Heat Sink	CNR1808
	30	Sub Heat Sink	CNR1810
	31	Screw	PPZ30P100FSN
	32	Screw	PPZ30P100FTB
	33	Terminal(CN850)	VNF1084
	34	•••••	
	35	Cover	See Contrast table(2)
	36	Remote Control Unit	See Contrast table(2)
	37	Connector(CN1351)	See Contrast table(2)
	38	Spring	See Contrast table(2)
	39	Screw	PPZ30P100FTB
⚠	40	Fuse(FU100, FU101) (30A)	CEK1330
	41	Grille	See Contrast table(2)
	42	Knob Unit	See Contrast table(2)
	43	Screw	See Contrast table(2)

(2) CONTRAST TABLE

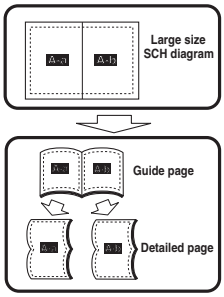
GM-7200M/XU/UC, GM-7200M/XU/EW, GM-7200M/XU/ES and GM-7200M/XU/CN are constructed the same except for the following:

Mark	No.	Description	GM-7200M/XU/UC	GM-7200M/XU/EW	GM-7200M/XU/ES	GM-7200M/XU/CN
	8	Panel	CNB3229	CNB3201	CNB3229	CNB3229
	10	Heat Sink	CNR1826	CNR1806	CNR1826	CNR1826
	13	Amp Unit	CWH1286	CWH1285	CWH1286	CWH1286
	19	Connector(CN701)	Not used	CKS4962	Not used	Not used
	35	Cover	Not used	CNS8141	Not used	Not used
	36	Remote Control Unit	Not used	CWM9848	Not used	Not used
	37	Connector(CN1351)	Not used	CKS4962	Not used	Not used
	38	Spring	Not used	CBL1692	Not used	Not used
	41	Grille	Not used	CNS8140	Not used	Not used
	42	Knob Unit	Not used	CXC4335	Not used	Not used
	43	Screw	Not used	BPZ20P100FTB	Not used	Not used

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 SCHEMATIC DIAGRAM(GUIDE PAGE)

Note: When ordering service parts, be sure to refer to " EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".

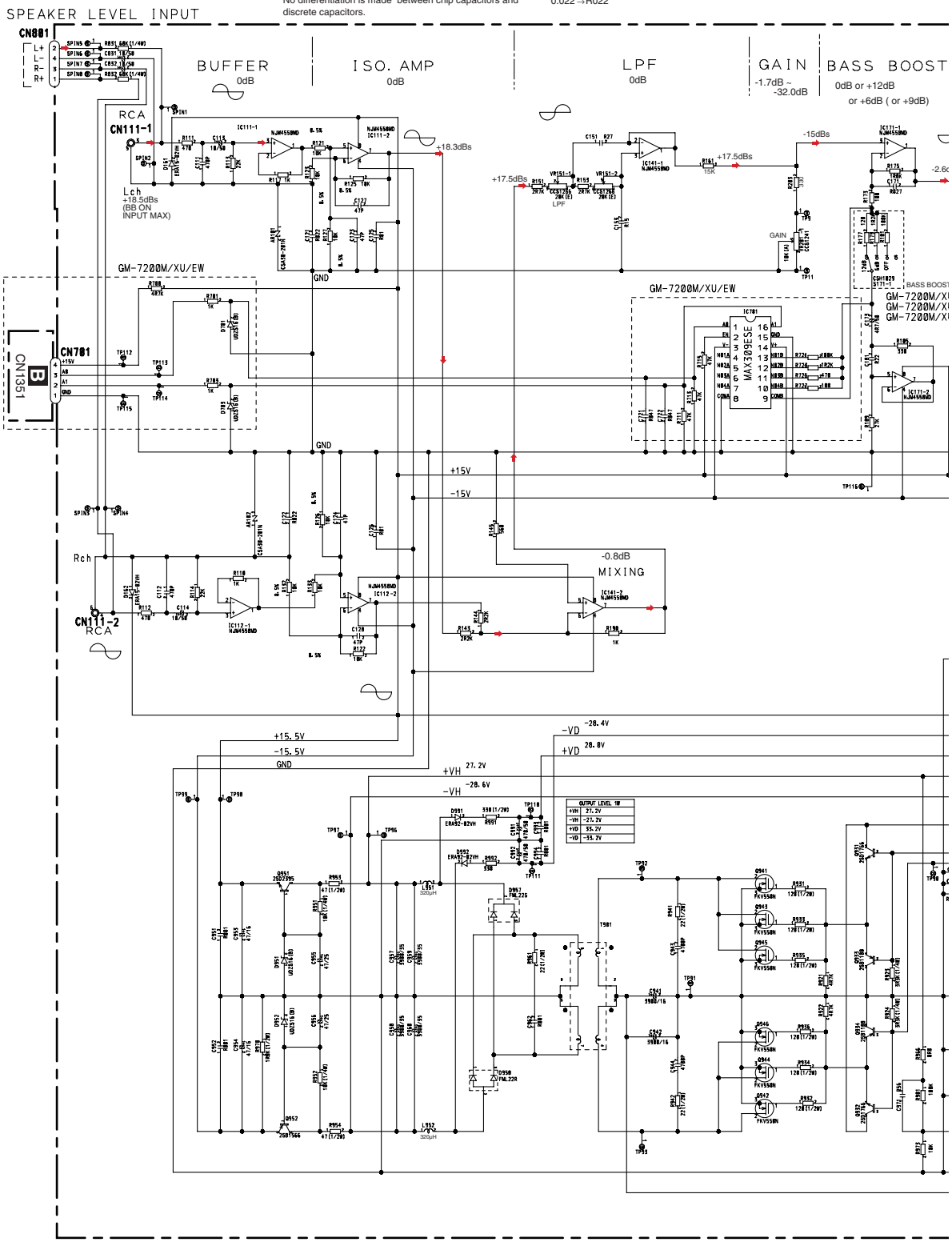


A-a

NOTE :
- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as :
2.2→2R2
0.022→R022

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

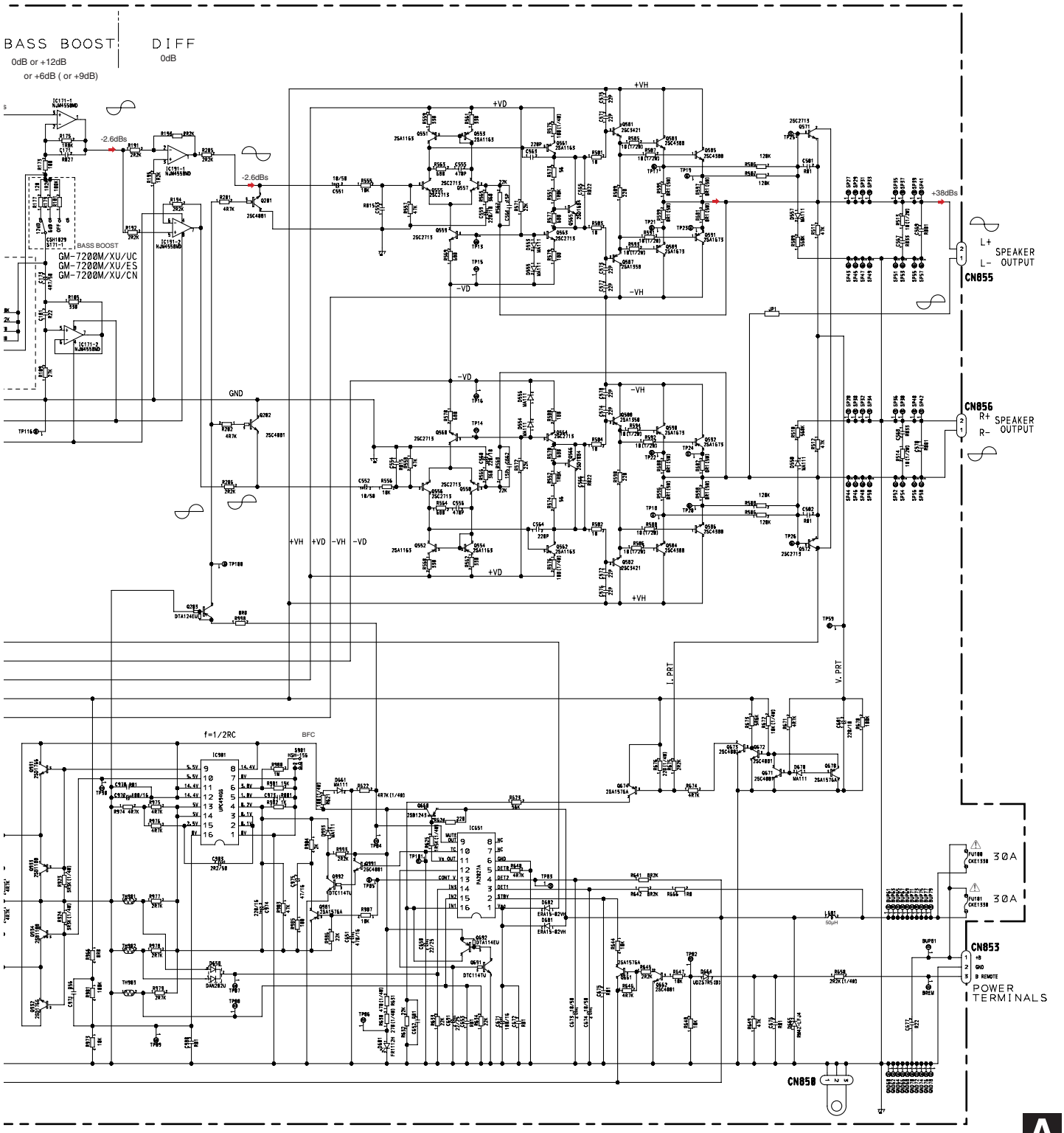


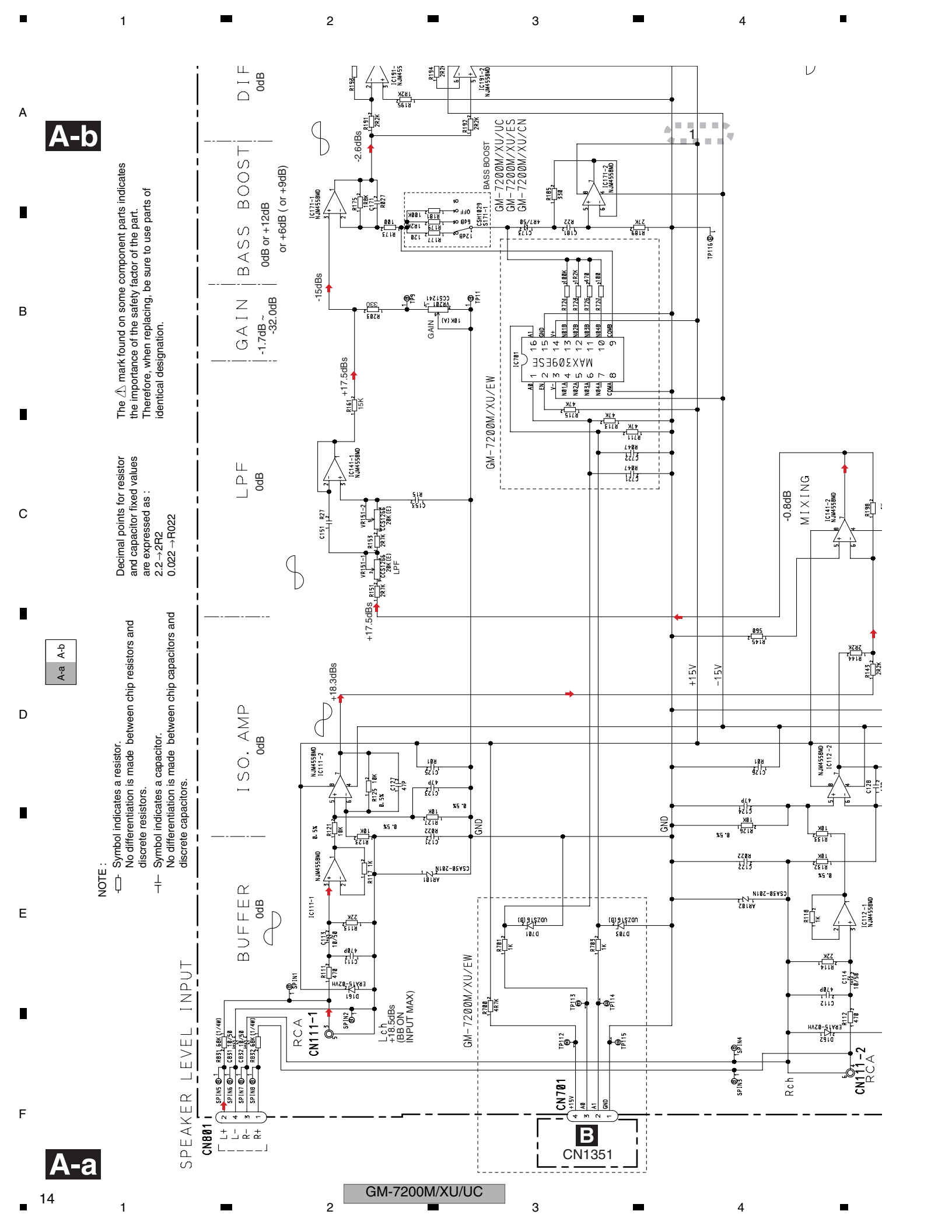
A

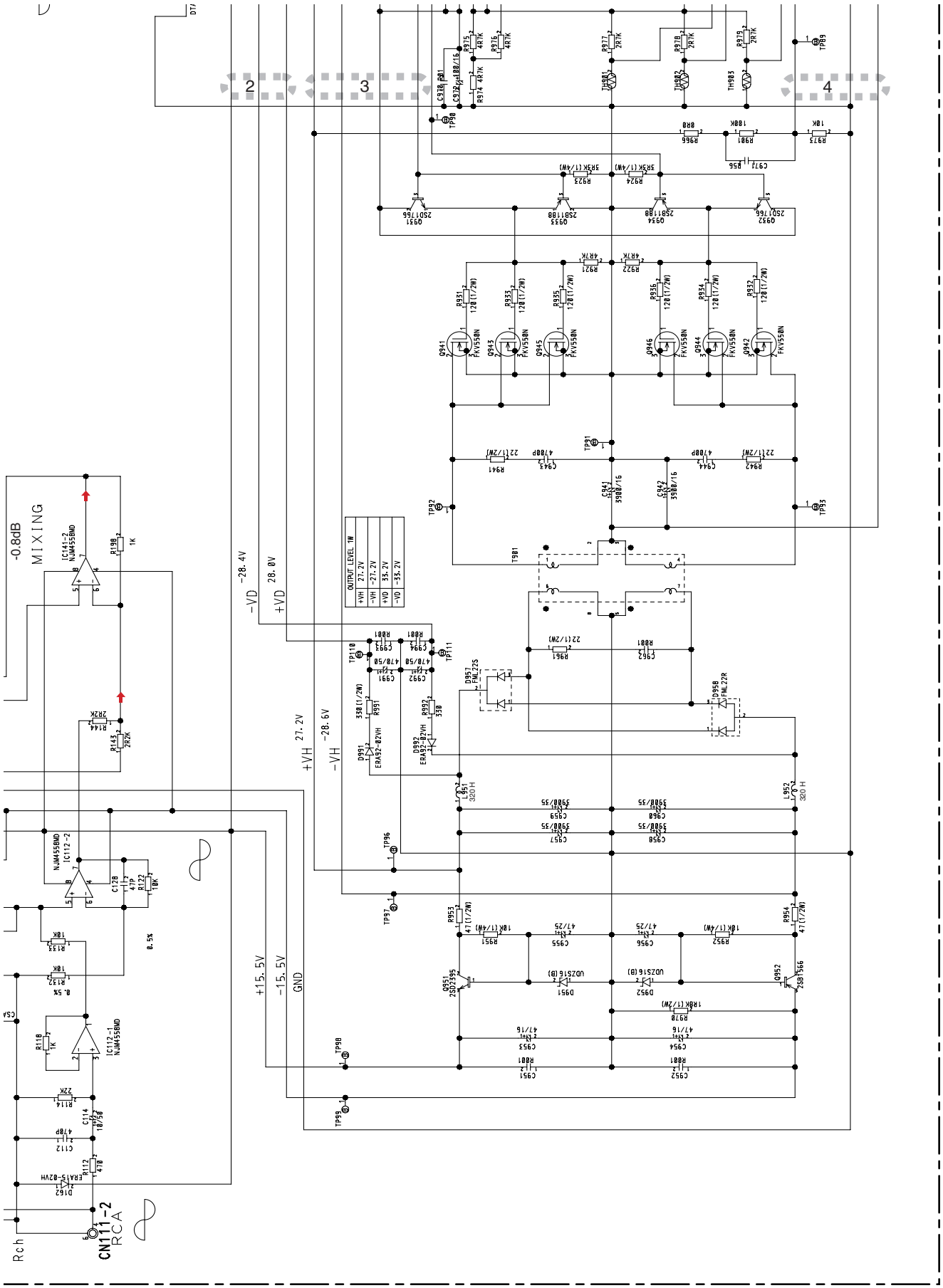
A-b

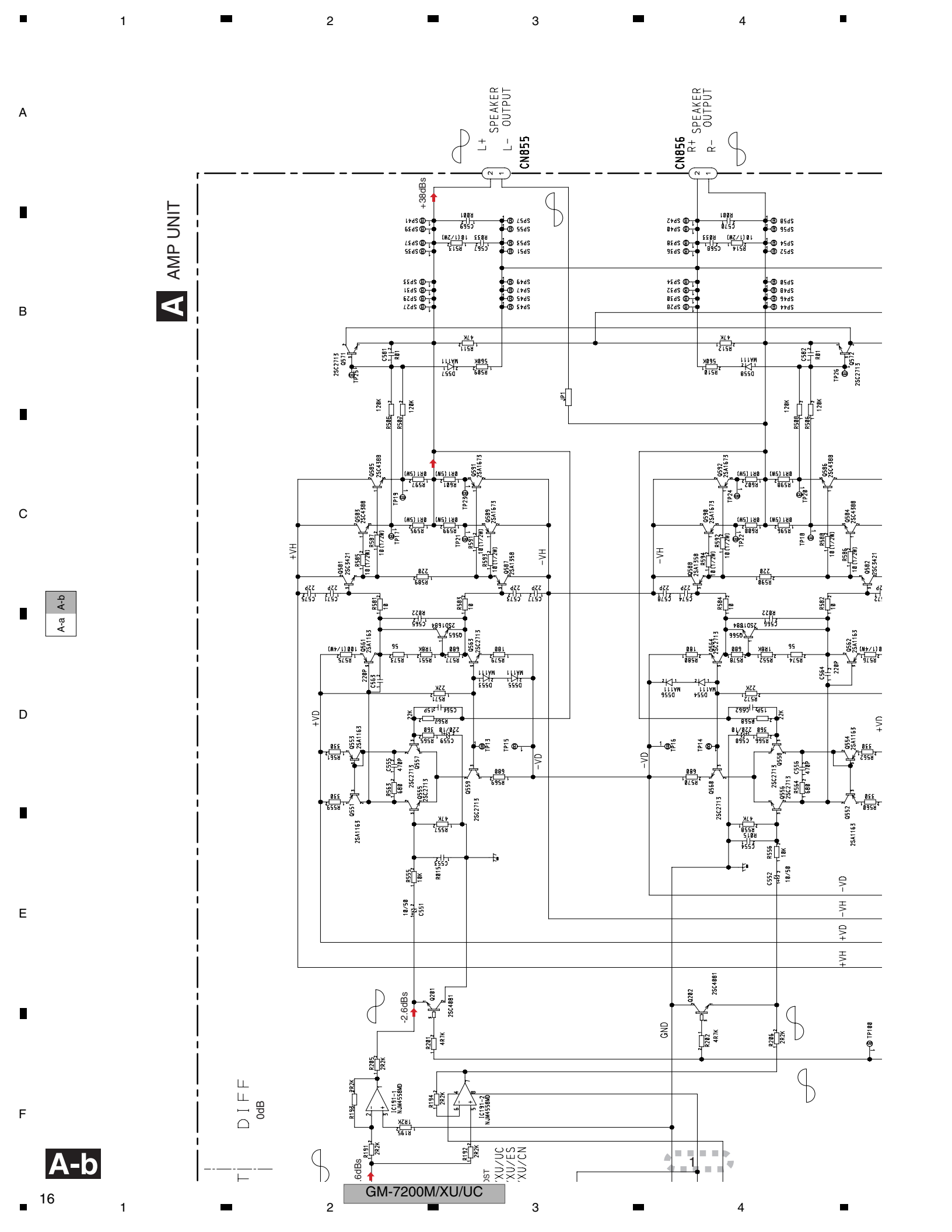
omponent parts indicates
ctor of the part.
sure to use parts of

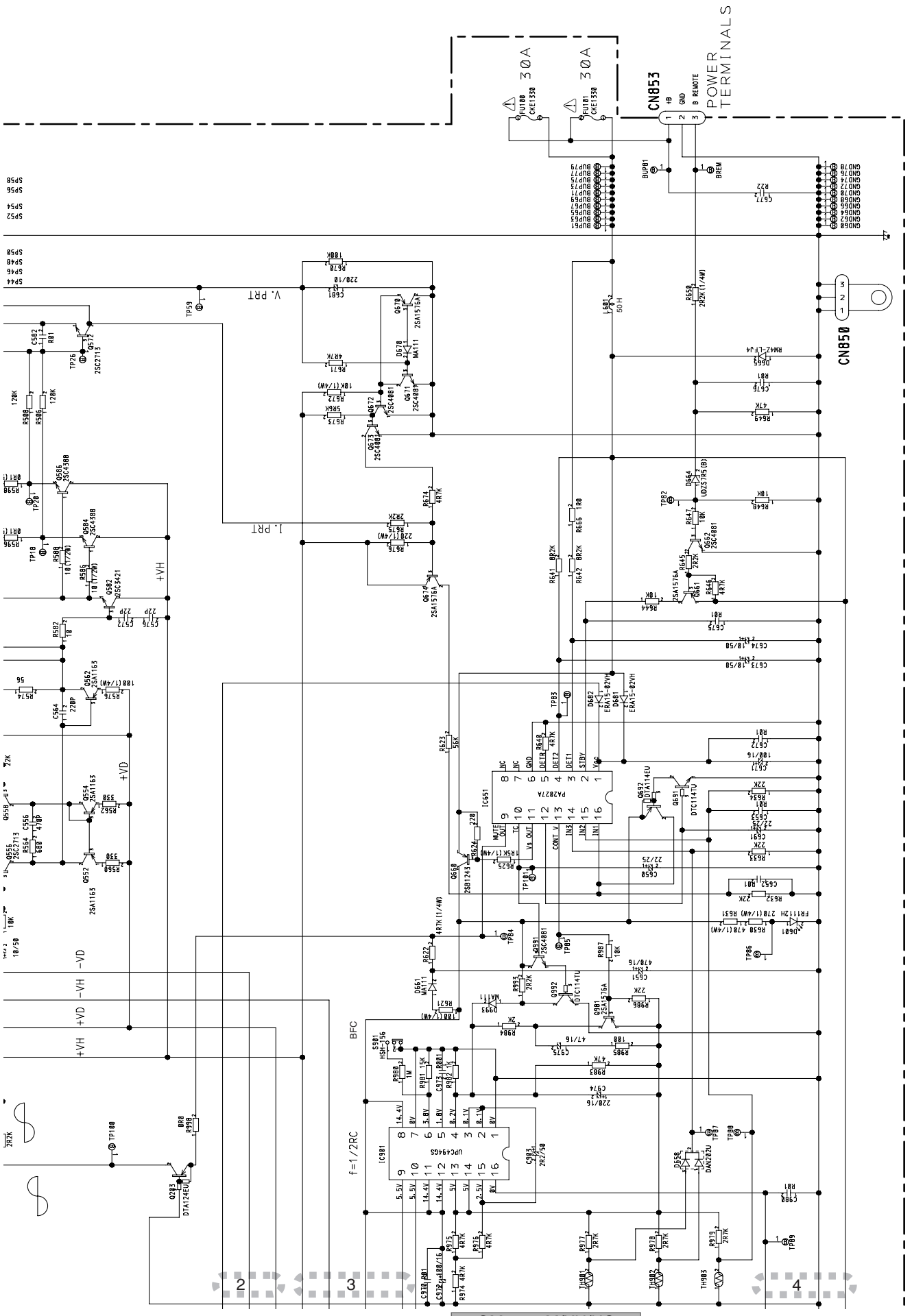
A AMP UNIT




A-b
A-a
SPEAKER LEVEL INPUT
BUFFER
0dB
ISO. AMP
0dB
LPF
0dB
GAIN
-1.7dB ~ -32.0dB
BASS BOOST
0dB or +12dB or +6dB (or +9dB)
DIF
0dB
-0.8dB
MIXING
+18.3dBs
+17.5dBs
-15dBs
-2.6dBs
+15V
-15V
GND
GM-7200M/XU/EW
GM-7200M/XU/UC
GM-7200M/XU/ES
GM-7200M/XU/CN
BASS BOOST
GAIN
LPF
ISO. AMP
MIXING
CN801
CN111-1
RCA
L ch
+18.5dBs
(BB ON
INPUT MAX)
CN111-2
RCA
R ch
CN701
B
CN1351
NOTE :
Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.
Decimal points for resistor and capacitor fixed values are expressed as :
2.2→2R2
0.022→R022
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part.
Therefore, when replacing, be sure to use parts of identical designation.

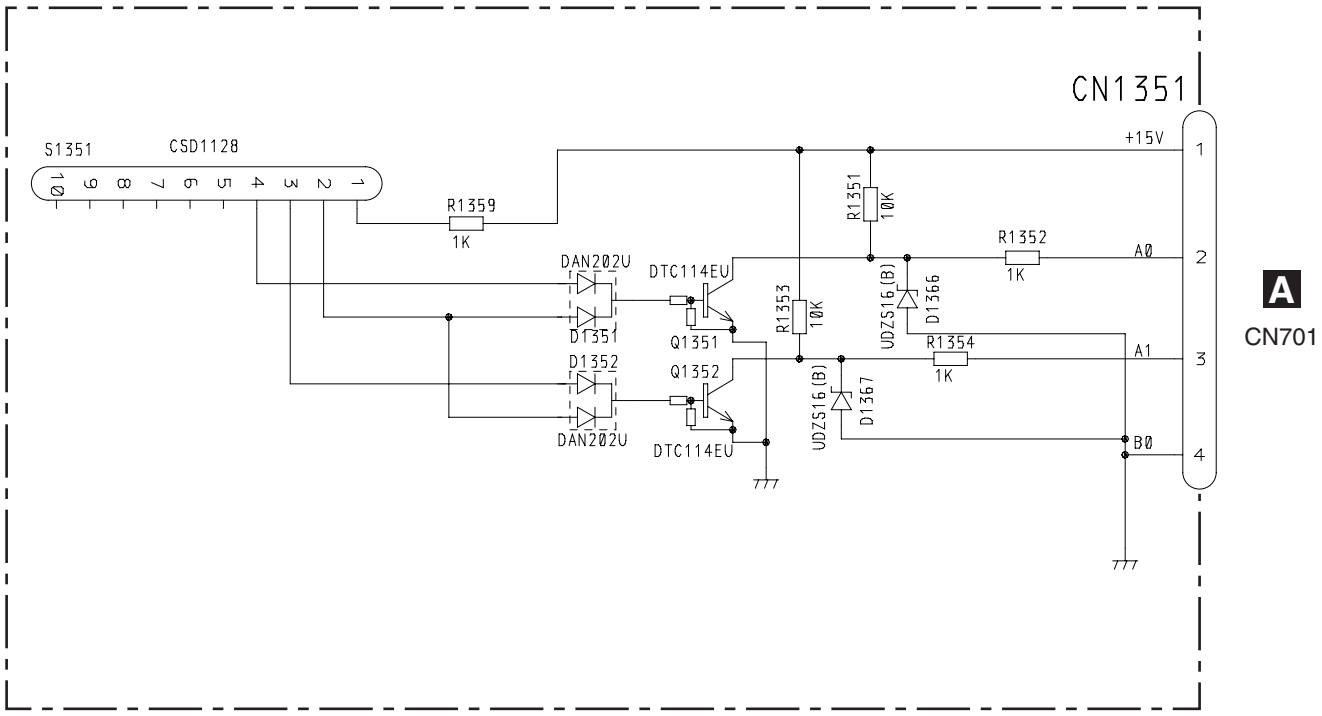

-0.8dB
MIXING
CN111-2
RCA
Rch
+VD 28.0V
-VD -28.4V
+VH 27.2V
-VH -28.6V
+15.5V
-15.5V
GND
OUTPUT LEVEL TW
+VH 27.2V
-VH -27.2V
+VD 35.2V
-VD -35.2V


A AMP UNIT
CN855
L+ SPEAKER OUTPUT L-
CN856
R+ SPEAKER OUTPUT R-
+38dBs
-2.6dBs
.6dBs
+VH
-VH
+VD
-VD
GND
DIFF
0dB
A-a
A-b
A-b
GM-7200M/XU/UC
16


POWER TERMINALS
CN853
CN850
30A
30A
V. PRT
L. PRT
+VH
+VD
-VD
-VH
BFC
f=1/2RC
PA2027A
UPC4945S
GM-7200M/XU/UC

3.2 REMOTE CONTROL UNIT(EW)

B REMOTE CONTROL UNIT



B

A

B

C

D

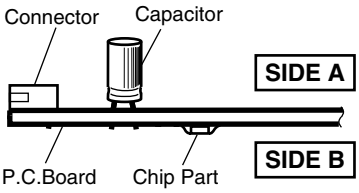
E

F

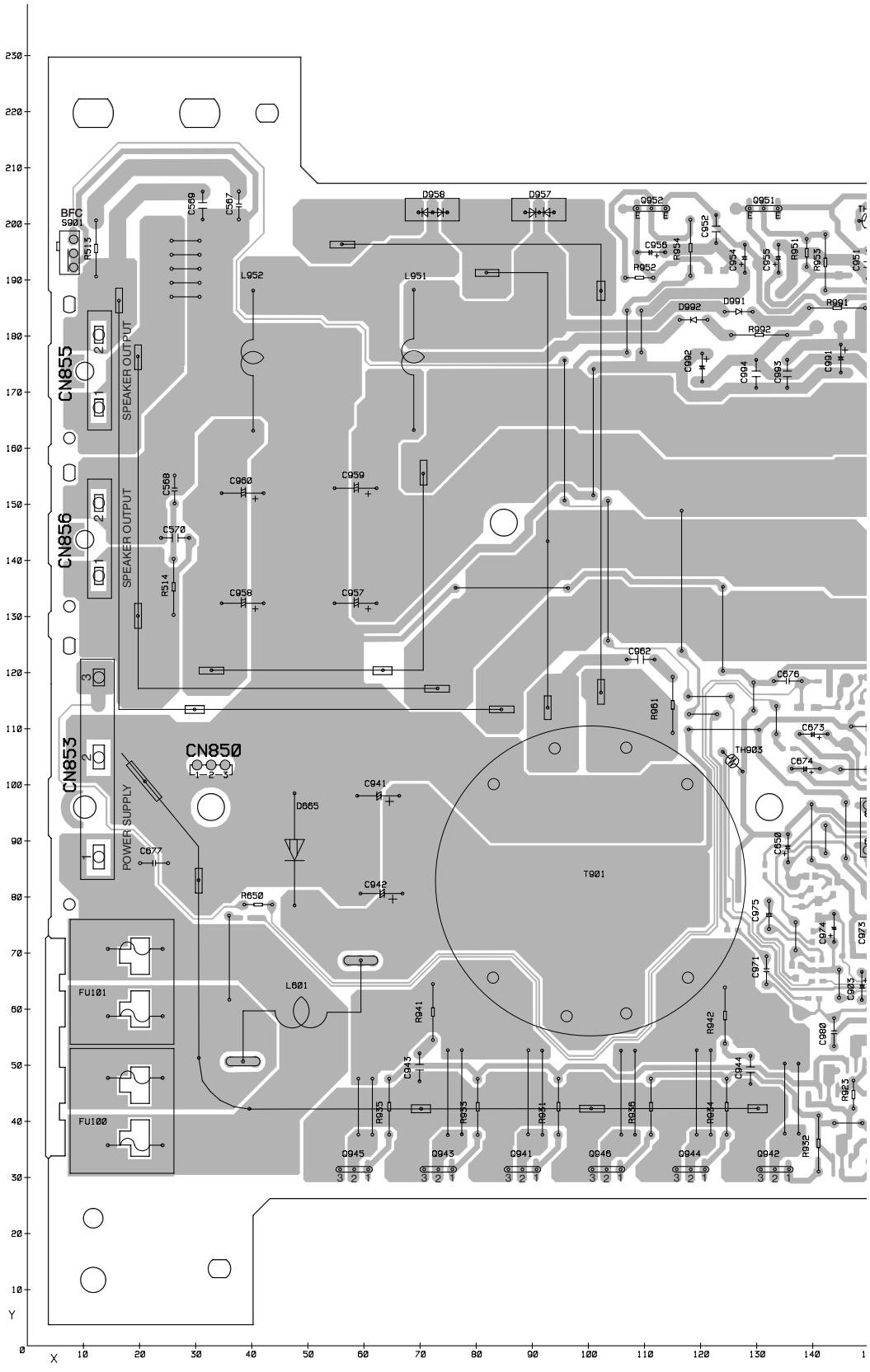
4. PCB CONNECTION DIAGRAM
4.1 AMP UNIT

NOTE FOR PCB DIAGRAMS

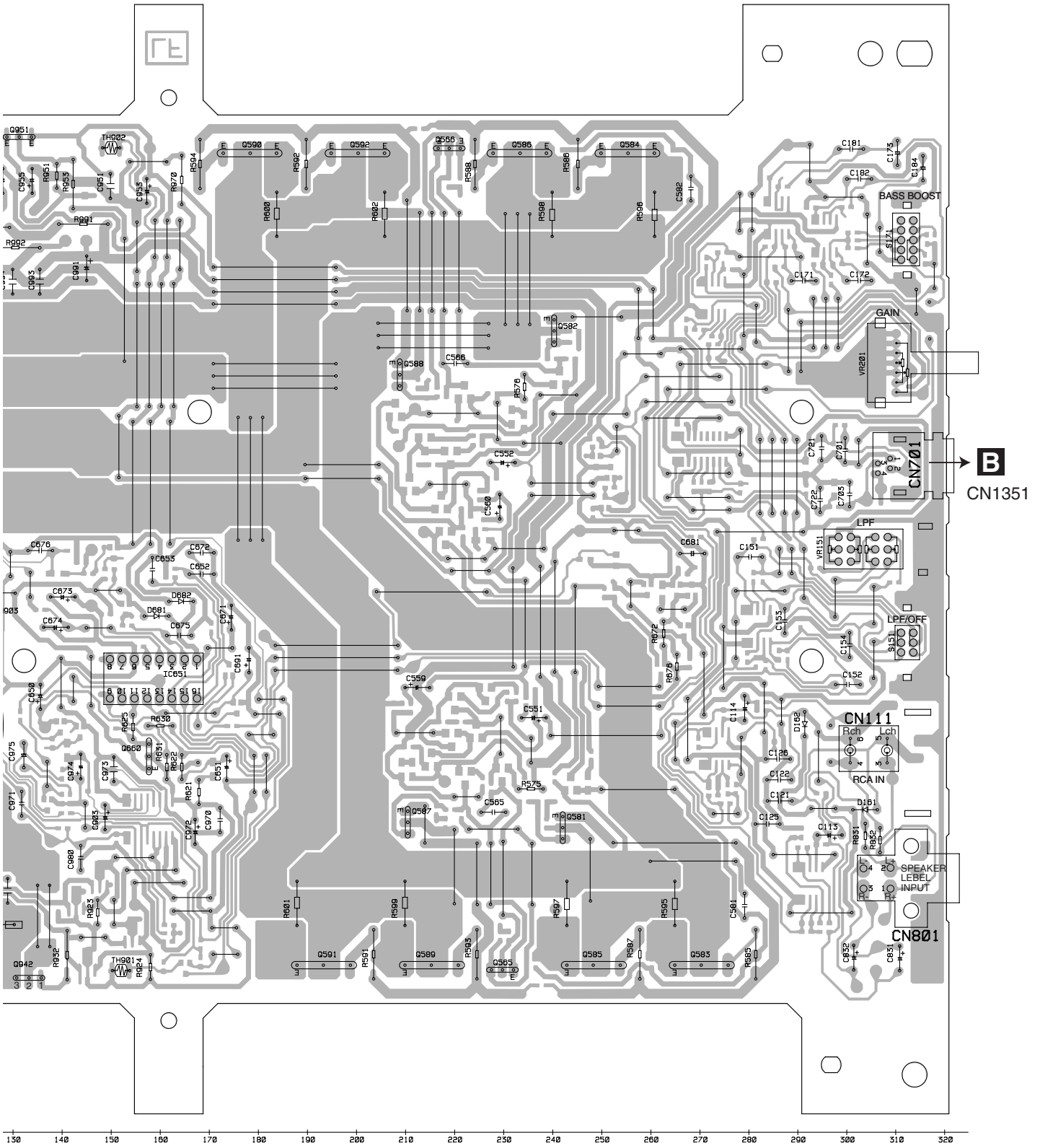
1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



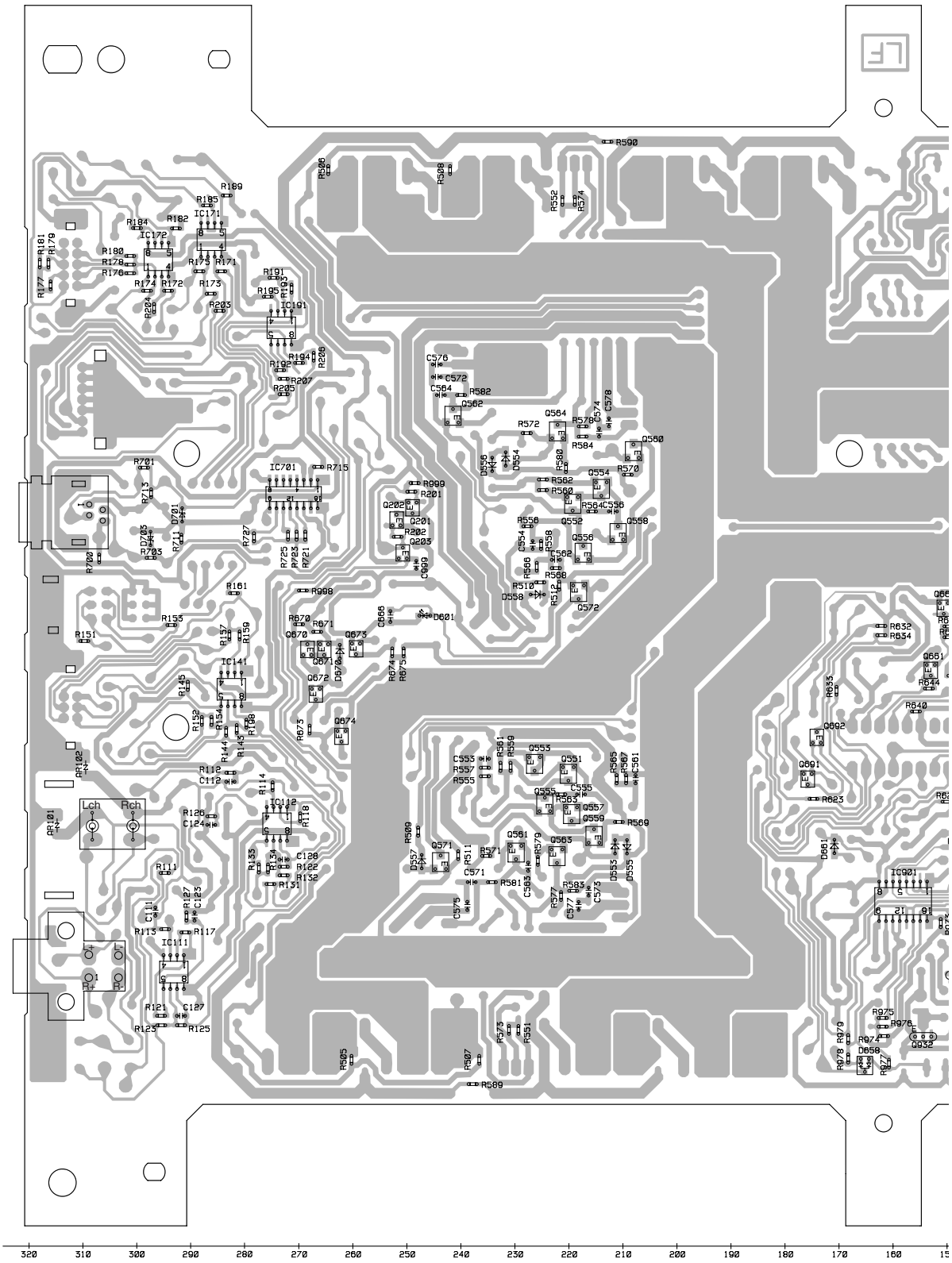
A AMP UNIT



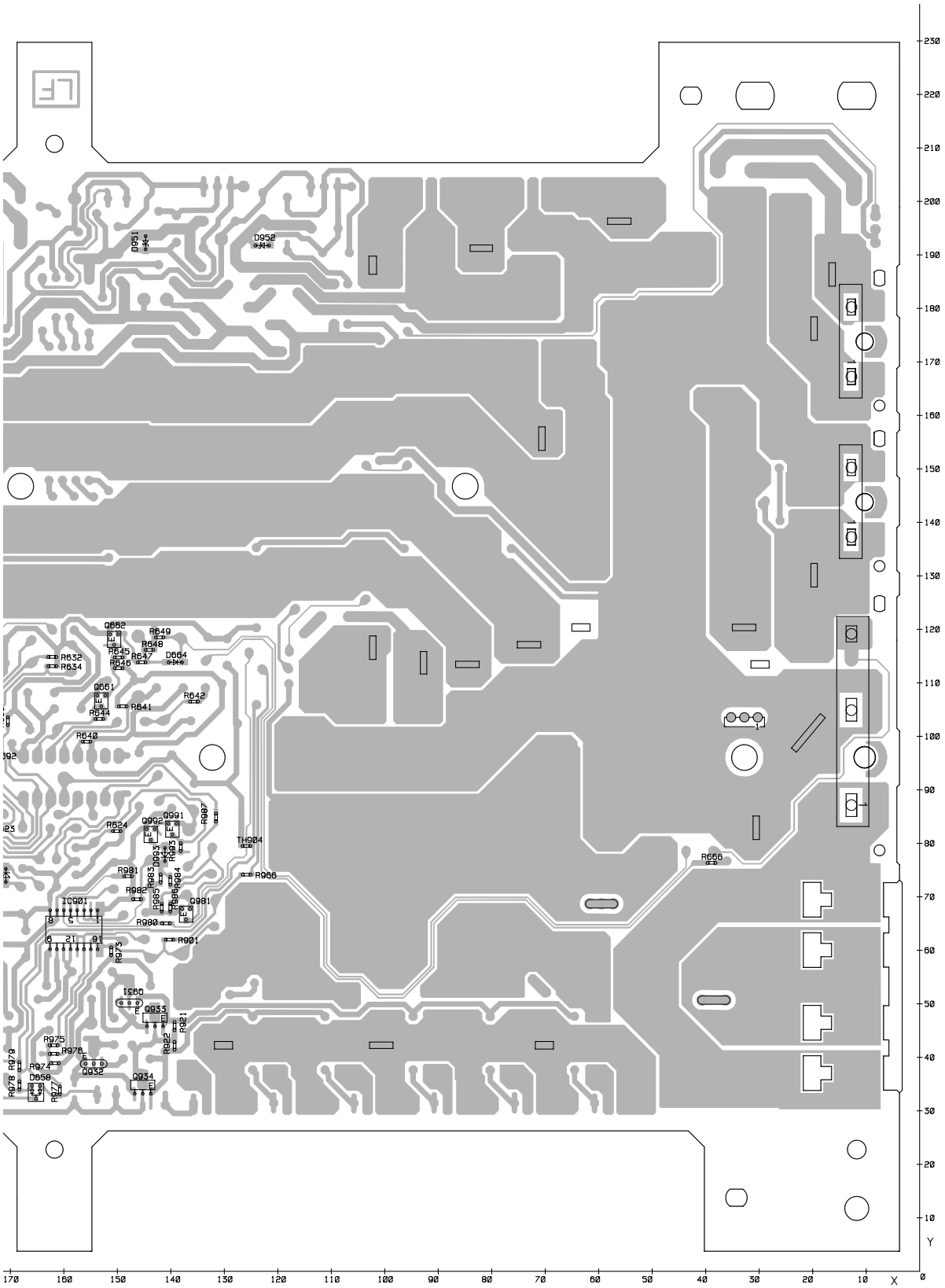
SIDE A


BASS BOOST
GAIN
LPF
LPF/OFF
CN111
Rch
Lch
RCA IN
SPEAKER LEVEL INPUT
CN801
CN701
B
CN1351
IC651
TH902
TH901
VR201
VR151
S171
S151
130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320

A AMP UNIT

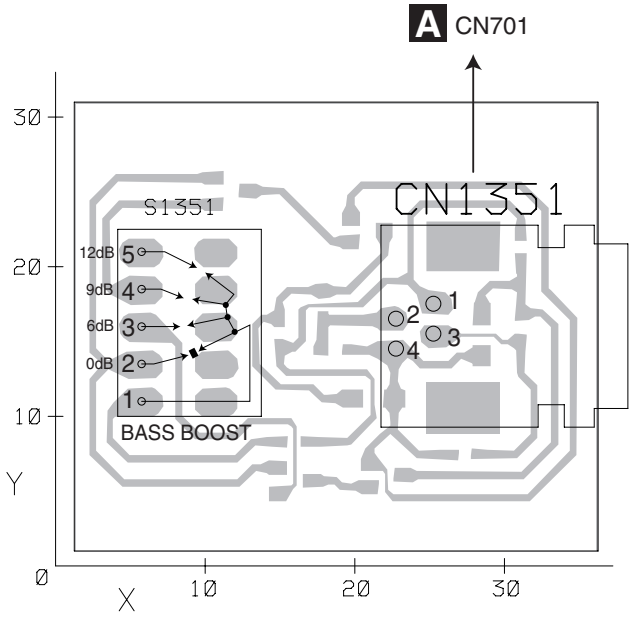

Lch
Rch
320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160

SIDE B

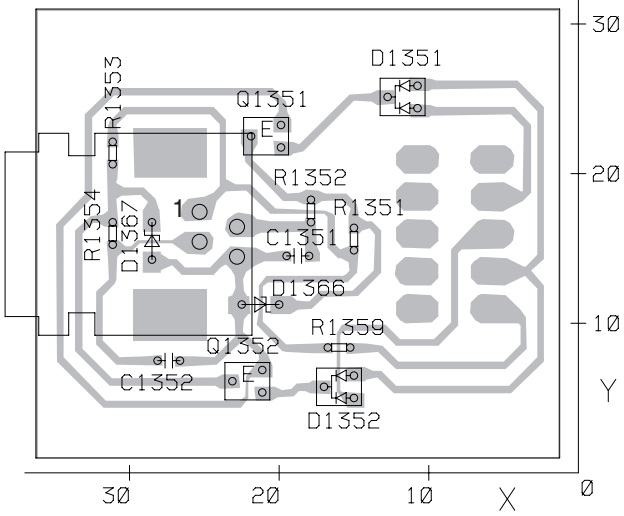

LF
D951
D952
Q652
R649
R648
R645
R646
R647
D664
R632
R634
Q661
R644
R641
R642
R640
R624
Q992
Q991
R987
TH904
R966
R666
R981
R982
R983
R984
R985
R986
R988
Q981
IC901
R980
R901
R973
Q931
Q933
R921
R922
R975
R976
R974
R978
R979
R977
D658
Q932
Q934
Y
X

4.2 REMOTE CONTROL UNIT(EW)

B REMOTE CONTROL UNIT SIDE A



B REMOTE CONTROL UNIT SIDE B



B

5. ELECTRICAL PARTS LIST

NOTE:

- *Parts whose parts numbers are omitted are subject to being not supplied.*
- *The part numbers shown below indicate chip components.*

  Chip Resistor

  RS1/◯S◯◯◯J,RS1/◯◯S◯◯◯J

  Chip Capacitor (except for CQS.....)

  CKS....., CCS....., CSZS.....
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Meaning of the figures and others in the parentheses in the parts list.*

  Example) IC 301 is on the point (face A, 91 of x-axis, and 111 of y-axis) of the corresponding PC board.

  IC 301 (A, 91, 111) IC NJM2068V

Circuit Symbol and No. **Part No.**

Unit Number : CWH1286(UC, ES, CN)

Unit Name : Amp Unit

Unit Number : CWH1285(EW)

Unit Name : Amp Unit

Unit Number : CWM9848(EW)

Unit Name : Remote Control Unit

A

Unit Number : CWH1286(UC, ES, CN)

Unit Name : Amp Unit

MISCELLANEOUS

IC 111	(B,293,51) IC	NJM4558MD
IC 112	(B,274,78) IC	NJM4558MD
IC 141	(B,283,103) IC	NJM4558MD
IC 171	(B,286,186) IC	NJM4558MD
IC 191	(B,273,170) IC	NJM4558MD
IC 651	(A,168,96) IC	PA2027A
IC 901	(B,158,64) IC	UPC494GS
Q 201	(B,249,137) Transistor	2SC4081
Q 202	(B,252,134) Transistor	2SC4081
Q 203	(B,251,128) Transistor	DTA124EU
Q 551	(B,220,87) Transistor	2SA1163
Q 552	(B,219,137) Transistor	2SA1163
Q 553	(B,226,89) Transistor	2SA1163
Q 554	(B,214,140) Transistor	2SA1163
Q 555	(B,224,82) Transistor	2SC2713
Q 556	(B,217,128) Transistor	2SC2713
Q 557	(B,220,80) Transistor	2SC2713
Q 558	(B,211,132) Transistor	2SC2713
Q 559	(B,215,76) Transistor	2SC2713
Q 560	(B,208,147) Transistor	2SC2713
Q 561	(B,230,73) Transistor	2SA1163
Q 562	(B,241,154) Transistor	2SA1163
Q 563	(B,222,72) Transistor	2SC2713
Q 564	(B,222,151) Transistor	2SC2713
Q 565	(A,230,33) Transistor	2SD1684
Q 566	(A,219,200) Transistor	2SD1684
Q 571	(B,244,71) Transistor	2SC2713
Q 572	(B,218,121) Transistor	2SC2713
Q 581	(A,242,62) Transistor	2SC3421
Q 582	(A,240,163) Transistor	2SC3421
Q 583	(A,276,34) Transistor	2SC4388
Q 584	(A,250,199) Transistor	2SC4388
Q 585	(A,254,34) Transistor	2SC4388
Q 586	(A,228,199) Transistor	2SC4388
Q 587	(A,210,63) Transistor	2SA1358
Q 588	(A,209,154) Transistor	2SA1358
Q 589	(A,221,34) Transistor	2SA1673
Q 590	(A,173,199) Transistor	2SA1673
Q 591	(A,199,34) Transistor	2SA1673
Q 592	(A,195,199) Transistor	2SA1673
Q 660	(A,158,74) Transistor	2SB1243
Q 661	(B,153,107) Transistor	2SA1576A
Q 662	(B,151,118) Transistor	2SC4081
Q 670	(B,268,110) Transistor	2SA1576A
Q 671	(B,265,110) Transistor	2SC4081
Q 672	(B,267,102) Transistor	2SC4081
Q 673	(B,259,111) Transistor	2SC4081
Q 674	(B,262,94) Transistor	2SA1576A
Q 691	(B,176,86) Transistor	DTC114TU
Q 692	(B,174,94) Transistor	DTA114EU
Q 931	(B,148,52) Transistor	2SD1766
Q 932	(B,154,41) Transistor	2SD1766
Q 933	(B,143,47) Transistor	2SB1188
Q 934	(B,145,35) Transistor	2SB1188
Q 941	(A,91,31) Transistor	FKV550N
Q 942	(A,136,31) Transistor	FKV550N
Q 943	(A,76,31) Transistor	FKV550N
Q 944	(A,121,31) Transistor	FKV550N
Q 945	(A,61,31) Transistor	FKV550N
Q 946	(A,106,31) Transistor	FKV550N
Q 951	(A,129,203) Transistor	2SD2395
Q 952	(A,109,203) Transistor	2SB1566
Q 981	(B,137,67) Transistor	2SA1576A
Q 991	(B,140,83) Transistor	2SC4081

Circuit Symbol and No.		Part No.
Q 992	(B,144,82) Transistor	DTC114TU
D 161	(A,306,66) Diode	ERA15-02VH
D 162	(A,291,86) Diode	ERA15-02VH
D 553	(B,211,74) Diode	MA111
D 554	(B,232,146) Diode	MA111
D 555	(B,209,74) Diode	MA111
D 556	(B,234,145) Diode	MA111
D 557	(B,247,71) Diode	MA111
D 558	(B,226,121) Diode	MA111
D 601	(B,247,117) LED	FR1112H
D 658	(B,165,33) Diode	DAN202U
D 661	(B,171,74) Diode	MA111
D 664	(B,139,114) Diode	UDZS7R5(B)
D 665	(A,48,99) Diode	RM4Z-LFJ4
D 670	(B,262,110) Diode	MA111
D 681	(A,157,105) Diode	ERA15-02VH
D 682	(A,162,108) Diode	ERA15-02VH
D 951	(B,145,192) Diode	UDZS16(B)
D 952	(B,123,192) Diode	UDZS16(B)
D 957	(A,89,202) Diode	FML22S
D 958	(A,70,202) Diode	FML22R
D 991	(A,124,184) Diode	ERA92-02VH
D 992	(A,121,183) Diode	ERA92-02VH
D 993	(B,141,78) Diode	MA111
L 601	(A,59,69) Choke Coil 50µH	CTH1323
L 951	(A,69,163) Choke Coil 320µH	CTH1326
L 952	(A,40,163) Choke Coil 320µH	CTH1326
T 901	(A,100,83) Transformer	CTT1123
TH901	(A,150,33) Thermistor	CCX1065
TH902	(A,148,201) Thermistor	CCX1065
TH903	(A,128,102) Thermistor	CCX1064
S 171	(A,314,178) Switch(BASS BOOST)	CSH1029
S 901	(A,8,197) Switch(BFC)	HSH-156
VR151	(A,308,116) Volume 20kΩ(E)(LPF)	CCS1266
VR201	(A,310,151) Volume 10kΩ(A)(GAIN)	CCS1241
⚠FU100	(A,19,42) Fuse 30A	CEK1330
⚠FU101	(A,19,65) Fuse 30A	CEK1330
AR101	(B,315,78) Surge Protector	CSA30-201N
AR102	(B,309,89) Surge Protector	CSA30-201N

RESISTORS

Circuit Symbol and No.		Part No.
R 111	(B,295,69)	RS1/16S471J
R 112	(B,283,88)	RS1/16S471J
R 113	(B,295,59)	RS1/16S223J
R 114	(B,275,85)	RS1/16S223J
R 117	(B,291,58)	RS1/16S102J
R 118	(B,270,79)	RS1/16S102J
R 121	(B,296,43)	RS1/16S1002D
R 122	(B,273,70)	RS1/16S1002D
R 123	(B,295,41)	RS1/16S1002D
R 125	(B,292,41)	RS1/16S1002D
R 126	(B,286,80)	RS1/16S1002D
R 127	(B,291,61)	RS1/16S1002D
R 132	(B,273,69)	RS1/16S1002D
R 133	(B,277,70)	RS1/16S1002D
R 143	(B,282,96)	RS1/16S222J
R 144	(B,283,95)	RS1/16S222J
R 145	(B,291,104)	RS1/16S561J
R 151	(B,310,112)	RS1/16S272J
R 153	(B,294,115)	RS1/16S272J
R 161	(B,282,121)	RS1/16S153J
R 173	(B,286,176)	RS1/16S101J
R 175	(B,288,181)	RS1/16S182J
R 177	(B,316,178)	RS1/16S121J
R 179	(B,316,182)	RS1/16S122J
R 181	(B,318,182)	RS1/16S104J
R 185	(B,287,193)	RS1/16S331J
R 189	(B,283,195)	RS1/16S273J
R 191	(B,275,179)	RS1/16S222J
R 192	(B,273,162)	RS1/16S222J
R 193	(B,271,177)	RS1/16S222J
R 194	(B,270,164)	RS1/16S222J
R 195	(B,276,176)	RS1/16S122J
R 198	(B,280,97)	RS1/16S102J
R 201	(B,249,140)	RS1/16S472J
R 202	(B,252,131)	RS1/16S472J
R 203	(B,285,173)	RS1/16S331J
R 205	(B,273,158)	RS1/16S222J
R 206	(B,267,165)	RS1/16S222J
R 505	(B,260,35)	RS1/16S124J
R 506	(B,265,199)	RS1/16S124J
R 507	(B,237,35)	RS1/16S124J
R 508	(B,242,199)	RS1/16S124J
R 509	(B,248,77)	RS1/16S564J
R 510	(B,225,123)	RS1/16S564J
R 511	(B,241,72)	RS1/16S473J
R 512	(B,222,122)	RS1/16S473J
R 513	(A,12,201)	RD1/2PM100J
R 514	(A,26,140)	RD1/2PM100J
R 551	(B,229,40)	RS1/16S182J
R 552	(B,221,194)	RS1/16S182J
R 555	(B,236,87)	RS1/16S103J
R 556	(B,228,133)	RS1/16S103J
R 557	(B,236,89)	RS1/16S473J
R 558	(B,225,130)	RS1/16S473J
R 559	(B,231,89)	RS1/16S331J
R 560	(B,225,140)	RS1/16S331J
R 561	(B,233,89)	RS1/16S331J
R 562	(B,225,142)	RS1/16S331J
R 563	(B,221,84)	RS1/16S681J
R 564	(B,216,136)	RS1/16S681J
R 565	(B,211,86)	RS1/16S361J
R 566	(B,226,126)	RS1/16S361J
R 567	(B,209,86)	RS1/16S223J
R 568	(B,222,126)	RS1/16S223J
R 569	(B,211,79)	RS1/16S681J
R 570	(B,209,143)	RS1/16S681J
R 571	(B,235,72)	RS1/16S223J
R 572	(B,228,151)	RS1/16S223J
R 573	(B,231,40)	RS1/16S560J
R 574	(B,219,194)	RS1/16S560J
R 575	(A,233,70)	RD1/4PU101J
R 576	(A,234,154)	RD1/4PU101J
R 577	(B,221,65)	RS1/16S681J
R 578	(B,217,152)	RS1/16S681J
R 579	(B,226,71)	RS1/16S181J
R 580	(B,221,144)	RS1/16S181J
R 581	(B,234,67)	RS1/16S100J
R 582	(B,240,158)	RS1/16S100J

Circuit Symbol and No.		Part No.
R 583	(B,219,66)	RS1/16S100J
R 584	(B,217,150)	RS1/16S100J
R 585	(A,281,31)	RD1/2PM100J
R 586	(A,245,202)	RD1/2PM100J
R 587	(A,258,31)	RD1/2PM100J
R 588	(A,224,202)	RD1/2PM100J
R 589	(B,238,30)	RS1/16S221J
R 590	(B,213,205)	RS1/16S221J
R 591	(A,204,31)	RD1/2PM100J
R 592	(A,190,202)	RD1/2PM100J
R 593	(A,225,31)	RD1/2PM100J
R 594	(A,168,202)	RD1/2PM100J
R 595	(A,265,51) 0.1Ω	CCN1155
R 596	(A,261,192) 0.1Ω	CCN1155
R 597	(A,243,51) 0.1Ω	CCN1155
R 598	(A,240,192) 0.1Ω	CCN1155
R 599	(A,210,42) 0.1Ω	CCN1155
R 600	(A,184,183) 0.1Ω	CCN1155
R 601	(A,188,42) 0.1Ω	CCN1155
R 602	(A,206,183) 0.1Ω	CCN1155
R 621	(A,168,67)	RD1/4PU101J
R 622	(A,164,72)	RD1/4PU472J
R 623	(B,175,83)	RS1/16S563J
R 624	(B,150,82)	RS1/16S221J
R 625	(A,154,85)	RD1/4PU152J
R 630	(A,163,83)	RD1/4PU271J
R 631	(A,161,77)	RD1/4PU471J
R 632	(B,162,115)	RS1/16S223J
R 633	(B,170,103)	RS1/16S223J
R 634	(B,162,113)	RS1/16S223J
R 640	(B,156,99)	RS1/16S472J
R 641	(B,149,106)	RS1/16S822J
R 642	(B,136,107)	RS1/16S822J
R 644	(B,153,103)	RS1/16S103J
R 645	(B,150,115)	RS1/16S222J
R 646	(B,150,113)	RS1/16S472J
R 647	(B,145,114)	RS1/16S103J
R 648	(B,144,116)	RS1/16S103J
R 649	(B,142,119)	RS1/16S473J
R 650	(A,44,79)	RD1/4PU222J
R 666	(B,39,76)	RS1/16S1R0J
R 670	(B,270,115)	RS1/16S104J
R 671	(B,267,114)	RS1/16S472J
R 672	(A,263,104)	RD1/4PU103J
R 673	(B,268,96)	RS1/16S562J
R 674	(B,253,110)	RS1/16S472J
R 675	(B,251,110)	RS1/16S222J
R 676	(A,265,97)	RD1/4PU221J
R 831	(A,304,63)	RD1/4PU683J
R 832	(A,307,62)	RD1/4PU683J
R 901	(B,140,62)	RS1/16S104J
R 921	(B,139,46)	RS1/16S472J
R 922	(B,139,42)	RS1/16S472J
R 923	(A,147,47)	RD1/4PU332J
R 924	(A,158,31)	RD1/4PU332J
R 931	(A,95,38)	RD1/2PM121J
R 932	(A,141,31)	RD1/2PM121J
R 933	(A,80,38)	RD1/2PM121J
R 934	(A,125,38)	RD1/2PM121J
R 935	(A,65,38)	RD1/2PM121J
R 936	(A,111,38)	RD1/2PM121J
R 941	(A,72,65)	RD1/2PM220J
R 942	(A,124,54)	RD1/2PM220J
R 951	(A,139,197)	RD1/4PU103J
R 952	(A,112,190)	RD1/4PU103J
R 953	(A,142,198)	RD1/2PM470J
R 954	(A,118,201)	RD1/2PM470J
R 961	(A,115,109)	RD1/2PM220J
R 966	(B,126,74)	RS1/16S0R0J
R 970	(A,164,199)	RD1/2PM182J
R 973	(B,151,60)	RS1/16S103J
R 974	(B,162,39)	RS1/16S472J
R 975	(B,162,42)	RS1/16S472J
R 976	(B,162,41)	RS1/16S472J
R 977	(B,161,34)	RS1/16S272J
R 978	(B,168,35)	RS1/16S272J
R 979	(B,168,38)	RS1/16S272J
R 980	(B,141,65)	RS1/16S105J
R 981	(B,148,74)	RS1/16S153J
R 982	(B,146,70)	RS1/16S102J
R 983	(B,142,73)	RS1/16S473J
R 984	(B,140,73)	RS1/16S202J
R 985	(B,142,68)	RS1/16S101J
R 986	(B,140,68)	RS1/16S223J
R 987	(B,132,85)	RS1/16S103J
R 991	(A,139,185)	RD1/2PM331J
R 992	(A,125,180)	RD1/2PM331J
R 993	(B,138,79)	RS1/16S222J
R 998	(B,269,121)	RS1/16S0R0J

CAPACITORS

C 111	(B,297,62)	CKSRYB471K50
C 112	(B,283,86)	CKSRYB471K50
C 113	(A,299,61)	CEAT100M50
C 114	(A,279,89)	CEAT100M50
C 121	(A,284,68)	CFTNA223J50
C 122	(A,284,72)	CFTNA223J50
C 123	(B,289,61)	CCSRCH470J50
C 124	(B,286,78)	CCSRCH470J50
C 125	(A,286,63)	CFTNA103J50
C 126	(A,283,76)	CFTNA103J50
C 127	(B,292,43)	CCSRCH470J50
C 128	(B,273,72)	CCSRCH470J50
C 151	(A,283,117)	CFTNA274J50
C 153	(A,287,102)	CFTNA154J50
C 171	(A,289,173)	CFTNA273J50
C 173	(A,310,202)	CEANP4R7M50
C 181	(A,298,200)	CFTNA224J50
C 551	(A,239,84)	CEAT100M50
C 552	(A,232,136)	CEAT100M50
C 553	(B,236,90)	CKSRYB153K50
C 554	(B,227,130)	CKSRYB153K50
C 555	(B,218,84)	CKSRYB471K50
C 556	(B,212,136)	CKSRYB471K50
C 559	(A,210,91)	CEAT221M10
C 560	(A,229,125)	CEAT221M10
C 561	(B,208,86)	CCSRCH150J50
C 562	(B,222,127)	CCSRCH150J50
C 563	(B,228,70)	CCSRCH221J50

Circuit Symbol and No.		Part No.
C 564	(B,244,158)	CCSRCH221J50
C 565	(A,230,65)	CFTNA223J50
C 566	(A,218,157)	CFTNA223J50
C 567	(A,38,201)	CFTNA333J50
C 568	(A,26,155)	CFTNA333J50
C 569	(A,31,203)	CQHA102J2A
C 570	(A,26,144)	CQHA102J2A
C 571	(B,238,67)	CCSRCH220J50
C 572	(B,244,161)	CCSRCH220J50
C 573	(B,216,66)	CCSRCH220J50
C 574	(B,214,151)	CCSRCH220J50
C 575	(B,239,63)	CCSRCH220J50
C 576	(B,244,163)	CCSRCH220J50
C 577	(B,218,63)	CCSRCH220J50
C 578	(B,213,153)	CCSRCH220J50
C 581	(A,279,44)	CFTNA103J50
C 582	(A,268,195)	CFTNA103J50
C 650	(A,136,86)	CEAT220M25
C 651	(A,174,77)	CEAT471M16
C 652	(A,171,114)	CFTNA103J50
C 653	(A,158,117)	CFTNA103J50
C 671	(A,175,102)	CEAT101M16
C 672	(A,171,118)	CFTNA103J50
C 673	(A,143,109)	CEAT100M50
C 674	(A,141,103)	CEAT100M50
C 675	(A,166,101)	CFTNA103J50
C 676	(A,133,119)	CFTNA103J50
C 677	(A,25,86)	CFTNA224J50
C 681	(A,271,118)	CEANP221M10
C 691	(A,178,94)	CEAT220M25
C 831	(A,311,38)	CEAT100M50
C 832	(A,301,38)	CEAT100M50
C 903	(A,149,67)	CEAT2R2M50
C 941	(A,66,98) 3900µF/16V	CCH1644(P35)
C 942	(A,67,81) 3900µF/16V	CCH1644(P35)
C 943	(A,70,50)	CQHA472J2A
C 944	(A,129,49)	CQHA472J2A
C 951	(A,150,193)	CQHA102J2A
C 952	(A,123,199)	CQHA102J2A
C 953	(A,157,194)	CEAT470M16
C 954	(A,128,191)	CEAT470M16
C 955	(A,134,191)	CEAT470M25
C 956	(A,114,195)	CEAT470M25
C 957	(A,62,132) 3900µF/35V	CCH1645(P35)
C 958	(A,42,132) 3900µF/35V	CCH1645(P35)
C 959	(A,62,153) 3900µF/35V	CCH1645(P35)
C 960	(A,42,152) 3900µF/35V	CCH1645(P35)
C 962	(A,109,122)	CQHA102J2A
C 970	(A,172,61)	CFTNA103J50
C 971	(A,132,64)	CFTNA564J50
C 972	(A,167,64)	CEAT101M16
C 973	(A,151,74)	CQHA102J2A
C 974	(A,144,72)	CEAT221M16
C 975	(A,132,74)	CEANP470M16
C 980	(A,144,53)	CFTNA103J50
C 991	(A,145,179)	CEAT471M50(P45)
C 992	(A,120,177)	CEAT471M50(P45)
C 993	(A,135,173)	CQHA102J2A
C 994	(A,130,173)	CQHA102J2A

A

Unit Number : CWH1285(EW)
Unit Name : Amp Unit

MISCELLANEOUS

Circuit Symbol and No.			Part No.
IC 111	(B,293,51)	IC	NJM4558MD
IC 112	(B,274,78)	IC	NJM4558MD
IC 141	(B,283,103)	IC	NJM4558MD
IC 171	(B,286,186)	IC	NJM4558MD
IC 191	(B,273,170)	IC	NJM4558MD
IC 651	(A,168,96)	IC	PA2027A
IC 701	(B,271,139)	IC	MAX309ESE
IC 901	(B,158,64)	IC	UPC494GS
Q 201	(B,249,137)	Transistor	2SC4081
Q 202	(B,252,134)	Transistor	2SC4081
Q 203	(B,251,128)	Transistor	DTA124EU
Q 551	(B,220,87)	Transistor	2SA1163
Q 552	(B,219,137)	Transistor	2SA1163
Q 553	(B,226,89)	Transistor	2SA1163
Q 554	(B,214,140)	Transistor	2SA1163
Q 555	(B,224,82)	Transistor	2SC2713
Q 556	(B,217,128)	Transistor	2SC2713
Q 557	(B,220,80)	Transistor	2SC2713
Q 558	(B,211,132)	Transistor	2SC2713
Q 559	(B,215,76)	Transistor	2SC2713
Q 560	(B,208,147)	Transistor	2SC2713
Q 561	(B,230,73)	Transistor	2SA1163
Q 562	(B,241,154)	Transistor	2SA1163
Q 563	(B,222,72)	Transistor	2SC2713
Q 564	(B,222,151)	Transistor	2SC2713
Q 565	(A,230,33)	Transistor	2SD1684
Q 566	(A,219,200)	Transistor	2SD1684
Q 571	(B,244,71)	Transistor	2SC2713
Q 572	(B,218,121)	Transistor	2SC2713
Q 581	(A,242,62)	Transistor	2SC3421
Q 582	(A,240,163)	Transistor	2SC3421
Q 583	(A,276,34)	Transistor	2SC4388
Q 584	(A,250,199)	Transistor	2SC4388
Q 585	(A,254,34)	Transistor	2SC4388
Q 586	(A,228,199)	Transistor	2SC4388
Q 587	(A,210,63)	Transistor	2SA1358
Q 588	(A,209,154)	Transistor	2SA1358
Q 589	(A,221,34)	Transistor	2SA1673
Q 590	(A,173,199)	Transistor	2SA1673
Q 591	(A,199,34)	Transistor	2SA1673
Q 592	(A,195,199)	Transistor	2SA1673
Q 660	(A,158,74)	Transistor	2SB1243
Q 661	(B,153,107)	Transistor	2SA1576A
Q 662	(B,151,118)	Transistor	2SC4081
Q 670	(B,268,110)	Transistor	2SA1576A
Q 671	(B,265,110)	Transistor	2SC4081
Q 672	(B,267,102)	Transistor	2SC4081
Q 673	(B,259,111)	Transistor	2SC4081
Q 674	(B,262,94)	Transistor	2SA1576A
Q 691	(B,176,86)	Transistor	DTC114TU
Q 692	(B,174,94)	Transistor	DTA114EU
Q 931	(B,148,52)	Transistor	2SD1766
Q 932	(B,154,41)	Transistor	2SD1766

Circuit Symbol and No.		Part No.
Q 933	(B,143,47) Transistor	2SB1188
Q 934	(B,145,35) Transistor	2SB1188
Q 941	(A,91,31) Transistor	FKV550N
Q 942	(A,136,31) Transistor	FKV550N
Q 943	(A,76,31) Transistor	FKV550N
Q 944	(A,121,31) Transistor	FKV550N
Q 945	(A,61,31) Transistor	FKV550N
Q 946	(A,106,31) Transistor	FKV550N
Q 951	(A,129,203) Transistor	2SD2395
Q 952	(A,109,203) Transistor	2SB1566
Q 981	(B,137,67) Transistor	2SA1576A
Q 991	(B,140,83) Transistor	2SC4081
Q 992	(B,144,82) Transistor	DTC114TU
D 161	(A,306,66) Diode	ERA15-02VH
D 162	(A,291,86) Diode	ERA15-02VH
D 553	(B,211,74) Diode	MA111
D 554	(B,232,146) Diode	MA111
D 555	(B,209,74) Diode	MA111
D 556	(B,234,145) Diode	MA111
D 557	(B,247,71) Diode	MA111
D 558	(B,226,121) Diode	MA111
D 601	(B,247,117) LED	FR1112H
D 658	(B,165,33) Diode	DAN202U
D 661	(B,171,74) Diode	MA111
D 664	(B,139,114) Diode	UDZS7R5(B)
D 665	(A,48,99) Diode	RM4Z-LFJ4
D 670	(B,262,110) Diode	MA111
D 681	(A,157,105) Diode	ERA15-02VH
D 682	(A,162,108) Diode	ERA15-02VH
D 701	(B,292,135) Diode	UDZS16(B)
D 703	(B,297,131) Diode	UDZS16(B)
D 951	(B,145,192) Diode	UDZS16(B)
D 952	(B,123,192) Diode	UDZS16(B)
D 957	(A,89,202) Diode	FML22S
D 958	(A,70,202) Diode	FML22R
D 991	(A,124,184) Diode	ERA92-02VH
D 992	(A,121,183) Diode	ERA92-02VH
D 993	(B,141,78) Diode	MA111
L 601	(A,59,69) Choke Coil 50µH	CTH1323
L 951	(A,69,163) Choke Coil 320µH	CTH1326
L 952	(A,40,163) Choke Coil 320µH	CTH1326
T 901	(A,100,83) Transformer	CTT1123
TH901	(A,150,33) Thermistor	CCX1065
TH902	(A,148,201) Thermistor	CCX1065
TH903	(A,128,102) Thermistor	CCX1064
S 901	(A,8,197) Switch(BFC)	HSH-156
VR151	(A,308,116) Volume 20kΩ(E)(LPF)	CCS1266
VR201	(A,310,151) Volume 10kΩ(A)(GAIN)	CCS1241
⚠FU100	(A,19,42) Fuse 30A	CEK1330
⚠FU101	(A,19,65) Fuse 30A	CEK1330
AR101	(B,315,78) Surge Protector	CSA30-201N
AR102	(B,309,89) Surge Protector	CSA30-201N

RESISTORS

R 111	(B,295,69)	RS1/16S471J
R 112	(B,283,88)	RS1/16S471J
R 113	(B,295,59)	RS1/16S223J
R 114	(B,275,85)	RS1/16S223J
R 117	(B,291,58)	RS1/16S102J
R 118	(B,270,79)	RS1/16S102J
R 121	(B,296,43)	RS1/16S1002D
R 122	(B,273,70)	RS1/16S1002D
R 123	(B,295,41)	RS1/16S1002D
R 125	(B,292,41)	RS1/16S1002D
R 126	(B,286,80)	RS1/16S1002D
R 127	(B,291,61)	RS1/16S1002D
R 132	(B,273,69)	RS1/16S1002D
R 133	(B,277,70)	RS1/16S1002D
R 143	(B,282,96)	RS1/16S222J
R 144	(B,283,95)	RS1/16S222J
R 145	(B,291,104)	RS1/16S561J
R 151	(B,310,112)	RS1/16S272J
R 153	(B,294,115)	RS1/16S272J
R 161	(B,282,121)	RS1/16S153J
R 173	(B,286,176)	RS1/16S101J
R 175	(B,288,181)	RS1/16S182J
R 185	(B,287,193)	RS1/16S331J
R 189	(B,283,195)	RS1/16S273J
R 191	(B,275,179)	RS1/16S222J
R 192	(B,273,162)	RS1/16S222J
R 193	(B,271,177)	RS1/16S222J
R 194	(B,270,164)	RS1/16S222J
R 195	(B,276,176)	RS1/16S122J
R 198	(B,280,97)	RS1/16S102J
R 201	(B,249,140)	RS1/16S472J
R 202	(B,252,131)	RS1/16S472J
R 203	(B,285,173)	RS1/16S331J
R 205	(B,273,158)	RS1/16S222J
R 206	(B,267,165)	RS1/16S222J
R 505	(B,260,35)	RS1/16S124J
R 506	(B,265,199)	RS1/16S124J
R 507	(B,237,35)	RS1/16S124J
R 508	(B,242,199)	RS1/16S124J
R 509	(B,248,77)	RS1/16S564J
R 510	(B,225,123)	RS1/16S564J
R 511	(B,241,72)	RS1/16S473J
R 512	(B,222,122)	RS1/16S473J
R 513	(A,12,201)	RD1/2PM100J
R 514	(A,26,140)	RD1/2PM100J
R 551	(B,229,40)	RS1/16S182J
R 552	(B,221,194)	RS1/16S182J
R 555	(B,236,87)	RS1/16S103J
R 556	(B,228,133)	RS1/16S103J
R 557	(B,236,89)	RS1/16S473J
R 558	(B,225,130)	RS1/16S473J
R 559	(B,231,89)	RS1/16S331J
R 560	(B,225,140)	RS1/16S331J
R 561	(B,233,89)	RS1/16S331J
R 562	(B,225,142)	RS1/16S331J
R 563	(B,221,84)	RS1/16S681J
R 564	(B,216,136)	RS1/16S681J
R 565	(B,211,86)	RS1/16S361J
R 566	(B,226,126)	RS1/16S361J
R 567	(B,209,86)	RS1/16S223J
R 568	(B,222,126)	RS1/16S223J
R 569	(B,211,79)	RS1/16S681J
R 570	(B,209,143)	RS1/16S681J
R 571	(B,235,72)	RS1/16S223J
R 572	(B,228,151)	RS1/16S223J

Circuit Symbol and No.		Part No.
R 573	(B,231,40)	RS1/16S560J
R 574	(B,219,194)	RS1/16S560J
R 575	(A,233,70)	RD1/4PU101J
R 576	(A,234,154)	RD1/4PU101J
R 577	(B,221,65)	RS1/16S681J
R 578	(B,217,152)	RS1/16S681J
R 579	(B,226,71)	RS1/16S181J
R 580	(B,221,144)	RS1/16S181J
R 581	(B,234,67)	RS1/16S100J
R 582	(B,240,158)	RS1/16S100J
R 583	(B,219,66)	RS1/16S100J
R 584	(B,217,150)	RS1/16S100J
R 585	(A,281,31)	RD1/2PM100J
R 586	(A,245,202)	RD1/2PM100J
R 587	(A,258,31)	RD1/2PM100J
R 588	(A,224,202)	RD1/2PM100J
R 589	(B,238,30)	RS1/16S221J
R 590	(B,213,205)	RS1/16S221J
R 591	(A,204,31)	RD1/2PM100J
R 592	(A,190,202)	RD1/2PM100J
R 593	(A,225,31)	RD1/2PM100J
R 594	(A,168,202)	RD1/2PM100J
R 595	(A,265,51) R1Ω	CCN1155
R 596	(A,261,192) R1Ω	CCN1155
R 597	(A,243,51) R1Ω	CCN1155
R 598	(A,240,192) R1Ω	CCN1155
R 599	(A,210,42) R1Ω	CCN1155
R 600	(A,184,183) R1Ω	CCN1155
R 601	(A,188,42) R1Ω	CCN1155
R 602	(A,206,183) R1Ω	CCN1155
R 621	(A,168,67)	RD1/4PU101J
R 622	(A,164,72)	RD1/4PU472J
R 623	(B,175,83)	RS1/16S563J
R 624	(B,150,82)	RS1/16S221J
R 625	(A,154,85)	RD1/4PU152J
R 630	(A,163,83)	RD1/4PU271J
R 631	(A,161,77)	RD1/4PU471J
R 632	(B,162,115)	RS1/16S223J
R 633	(B,170,103)	RS1/16S223J
R 634	(B,162,113)	RS1/16S223J
R 640	(B,156,99)	RS1/16S472J
R 641	(B,149,106)	RS1/16S822J
R 642	(B,136,107)	RS1/16S822J
R 644	(B,153,103)	RS1/16S103J
R 645	(B,150,115)	RS1/16S222J
R 646	(B,150,113)	RS1/16S472J
R 647	(B,145,114)	RS1/16S103J
R 648	(B,144,116)	RS1/16S103J
R 649	(B,142,119)	RS1/16S473J
R 650	(A,44,79)	RD1/4PU222J
R 666	(B,39,76)	RS1/16S1R0J
R 670	(B,270,115)	RS1/16S104J
R 671	(B,267,114)	RS1/16S472J
R 672	(A,263,104)	RD1/4PU103J
R 673	(B,268,96)	RS1/16S562J
R 674	(B,253,110)	RS1/16S472J
R 675	(B,251,110)	RS1/16S222J
R 676	(A,265,97)	RD1/4PU221J
R 700	(B,307,127)	RS1/16S472J
R 701	(B,299,144)	RS1/16S102J

Circuit Symbol and No.		Part No.
R 703	(B,297,127)	RS1/16S102J
R 711	(B,292,131)	RS1/16S473J
R 713	(B,297,139)	RS1/16S473J
R 715	(B,266,144)	RS1/16S473J
R 721	(B,269,132)	RS1/16S104J
R 723	(B,270,132)	RS1/16S122J
R 725	(B,272,132)	RS1/16S471J
R 727	(B,278,131)	RS1/16S101J
R 831	(A,304,63)	RD1/4PU683J
R 832	(A,307,62)	RD1/4PU683J
R 901	(B,140,62)	RS1/16S104J
R 921	(B,139,46)	RS1/16S472J
R 922	(B,139,42)	RS1/16S472J
R 923	(A,147,47)	RD1/4PU332J
R 924	(A,158,31)	RD1/4PU332J
R 931	(A,95,38)	RD1/2PM121J
R 932	(A,141,31)	RD1/2PM121J
R 933	(A,80,38)	RD1/2PM121J
R 934	(A,125,38)	RD1/2PM121J
R 935	(A,65,38)	RD1/2PM121J
R 936	(A,111,38)	RD1/2PM121J
R 941	(A,72,65)	RD1/2PM220J
R 942	(A,124,54)	RD1/2PM220J
R 951	(A,139,197)	RD1/4PU103J
R 952	(A,112,190)	RD1/4PU103J
R 953	(A,142,198)	RD1/2PM470J
R 954	(A,118,201)	RD1/2PM470J
R 961	(A,115,109)	RD1/2PM220J
R 966	(B,126,74)	RS1/16S0R0J
R 970	(A,164,199)	RD1/2PM182J
R 973	(B,151,60)	RS1/16S103J
R 974	(B,162,39)	RS1/16S472J
R 975	(B,162,42)	RS1/16S472J
R 976	(B,162,41)	RS1/16S472J
R 977	(B,161,34)	RS1/16S272J
R 978	(B,168,35)	RS1/16S272J
R 979	(B,168,38)	RS1/16S272J
R 980	(B,141,65)	RS1/16S105J
R 981	(B,148,74)	RS1/16S153J
R 982	(B,146,70)	RS1/16S102J
R 983	(B,142,73)	RS1/16S473J
R 984	(B,140,73)	RS1/16S202J
R 985	(B,142,68)	RS1/16S101J
R 986	(B,140,68)	RS1/16S223J
R 987	(B,132,85)	RS1/16S103J
R 991	(A,139,185)	RD1/2PM331J
R 992	(A,125,180)	RD1/2PM331J
R 993	(B,138,79)	RS1/16S222J
R 998	(B,269,121)	RS1/16S0R0J

CAPACITORS

C 111	(B,297,62)	CKSRYB471K50
C 112	(B,283,86)	CKSRYB471K50
C 113	(A,299,61)	CEAT100M50
C 114	(A,279,89)	CEAT100M50
C 121	(A,284,68)	CFTNA223J50
C 122	(A,284,72)	CFTNA223J50
C 123	(B,289,61)	CCSRCH470J50
C 124	(B,286,78)	CCSRCH470J50

Circuit Symbol and No.		Part No.
C 125	(A,286,63)	CFTNA103J50
C 126	(A,283,76)	CFTNA103J50
C 127	(B,292,43)	CCSRCH470J50
C 128	(B,273,72)	CCSRCH470J50
C 151	(A,283,117)	CFTNA274J50
C 153	(A,287,102)	CFTNA154J50
C 171	(A,289,173)	CFTNA273J50
C 173	(A,310,202)	CEANP4R7M50
C 181	(A,298,200)	CFTNA224J50
C 551	(A,239,84)	CEAT100M50
C 552	(A,232,136)	CEAT100M50
C 553	(B,236,90)	CKSRYB153K50
C 554	(B,227,130)	CKSRYB153K50
C 555	(B,218,84)	CKSRYB471K50
C 556	(B,212,136)	CKSRYB471K50
C 559	(A,210,91)	CEAT221M10
C 560	(A,229,125)	CEAT221M10
C 561	(B,208,86)	CCSRCH150J50
C 562	(B,222,127)	CCSRCH150J50
C 563	(B,228,70)	CCSRCH221J50
C 564	(B,244,158)	CCSRCH221J50
C 565	(A,230,65)	CFTNA223J50
C 566	(A,218,157)	CFTNA223J50
C 567	(A,38,201)	CFTNA333J50
C 568	(A,26,155)	CFTNA333J50
C 569	(A,31,203)	CQHA102J2A
C 570	(A,26,144)	CQHA102J2A
C 571	(B,238,67)	CCSRCH220J50
C 572	(B,244,161)	CCSRCH220J50
C 573	(B,216,66)	CCSRCH220J50
C 574	(B,214,151)	CCSRCH220J50
C 575	(B,239,63)	CCSRCH220J50
C 576	(B,244,163)	CCSRCH220J50
C 577	(B,218,63)	CCSRCH220J50
C 578	(B,213,153)	CCSRCH220J50
C 581	(A,279,44)	CFTNA103J50
C 582	(A,268,195)	CFTNA103J50
C 650	(A,136,86)	CEAT220M25
C 651	(A,174,77)	CEAT471M16
C 652	(A,171,114)	CFTNA103J50
C 653	(A,158,117)	CFTNA103J50
C 671	(A,175,102)	CEAT101M16
C 672	(A,171,118)	CFTNA103J50
C 673	(A,143,109)	CEAT100M50
C 674	(A,141,103)	CEAT100M50
C 675	(A,166,101)	CFTNA103J50
C 676	(A,133,119)	CFTNA103J50
C 677	(A,25,86)	CFTNA224J50
C 681	(A,271,118)	CEANP221M10
C 691	(A,178,94)	CEAT220M25
C 721	(A,295,142)	CFTNA473J50
C 722	(A,295,126)	CFTNA473J50
C 831	(A,311,38)	CEAT100M50
C 832	(A,301,38)	CEAT100M50
C 903	(A,149,67)	CEAT2R2M50
C 941	(A,66,98) 3900µF/16V	CCH1644(P35)
C 942	(A,67,81) 3900µF/16V	CCH1644(P35)
C 943	(A,70,50)	CQHA472J2A
C 944	(A,129,49)	CQHA472J2A
C 951	(A,150,193)	CQHA102J2A
C 952	(A,123,199)	CQHA102J2A
C 953	(A,157,194)	CEAT470M16
C 954	(A,128,191)	CEAT470M16
C 955	(A,134,191)	CEAT470M25
C 956	(A,114,195)	CEAT470M25
C 957	(A,62,132) 3900µF/35V	CCH1645(P35)
C 958	(A,42,132) 3900µF/35V	CCH1645(P35)
C 959	(A,62,153) 3900µF/35V	CCH1645(P35)
C 960	(A,42,152) 3900µF/35V	CCH1645(P35)
C 962	(A,109,122)	CQHA102J2A
C 970	(A,172,61)	CFTNA103J50
C 971	(A,132,64)	CFTNA564J50
C 972	(A,167,64)	CEAT101M16
C 973	(A,151,74)	CQHA102J2A
C 974	(A,144,72)	CEAT221M16
C 975	(A,132,74)	CEANP470M16
C 980	(A,144,53)	CFTNA103J50
C 991	(A,145,179)	CEAT471M50(P45)
C 992	(A,120,177)	CEAT471M50(P45)
C 993	(A,135,173)	CQHA102J2A
C 994	(A,130,173)	CQHA102J2A

B

Unit Number : CWM9848(EW)
Unit Name : Remote Control Unit

MISCELLANEOUS

Q 1351	(B,21,23) Transistor	DTC114EU
Q 1352	(B,22,6) Transistor	DTC114EU
D 1351	(B,12,25) Diode	DAN202U
D 1352	(B,16,6) Diode	DAN202U
D 1366	(B,21,11) Diode	UDZS16(B)
D 1367	(B,29,16) Diode	UDZS16(B)
S 1351	(A,6,11) Switch(BASS BOOST)	CSD1128

RESISTORS

R 1351	(B,15,16)	RS1/16S103J
R 1352	(B,18,18)	RS1/16S102J
R 1353	(B,31,21)	RS1/16S103J
R 1354	(B,31,16)	RS1/16S102J
R 1359	(B,16,8)	RS1/16S102J

6. ADJUSTMENT

There is no information to be shown in this chapter.

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 DISASSEMBLY

● **Removing the Case (Fig.1)**

1 Remove the six screws and then remove the Case.

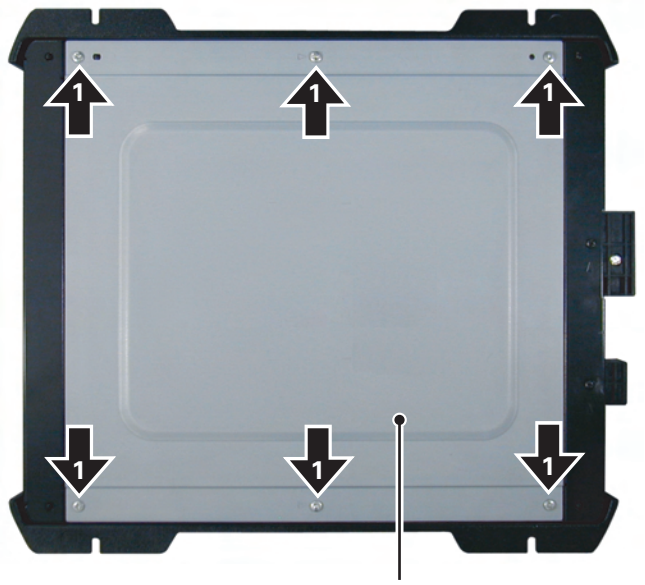


Fig.1

● **Removing the Amp Unit (Fig.2)**

1 Remove the fifteen screws and then remove the Amp Unit.

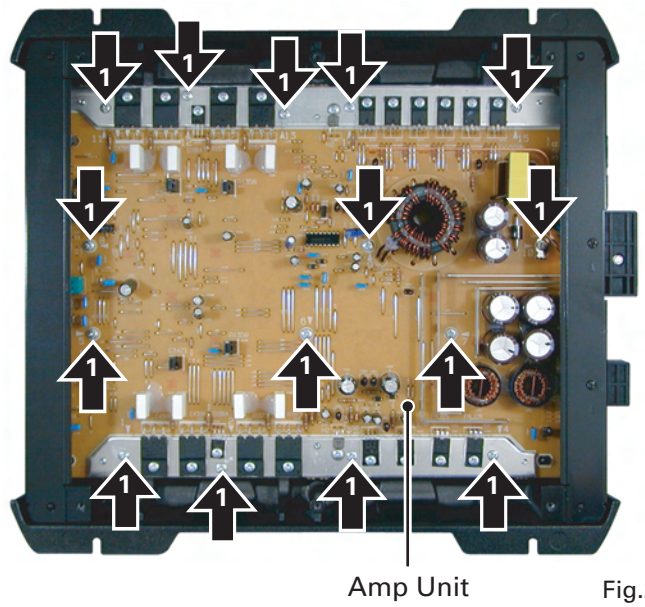
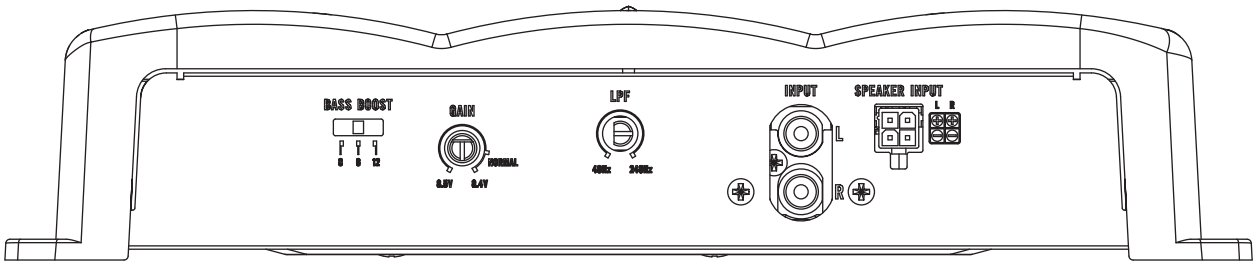


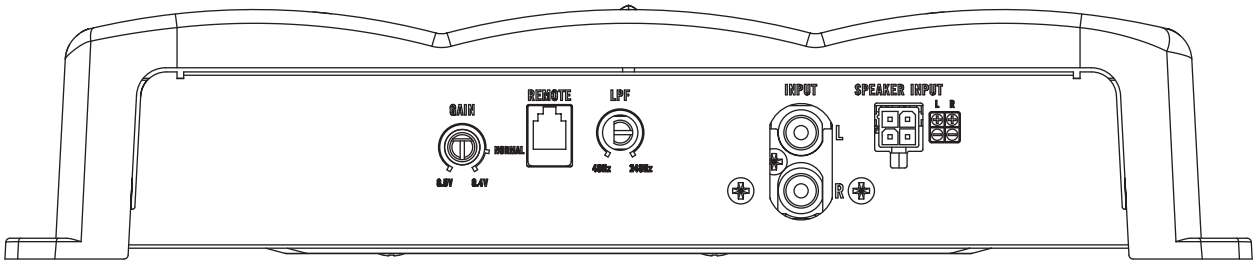
Fig.2

7.1.2 CONNECTOR FUNCTION DESCRIPTION

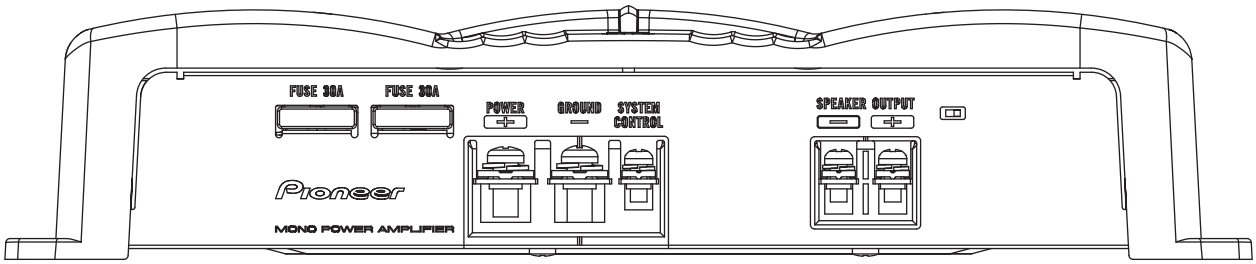
GM-7200M/XU/UC , GM-7200M/XU/ES , GM-7200M/XU/CN



GM-7200M/XU/EW

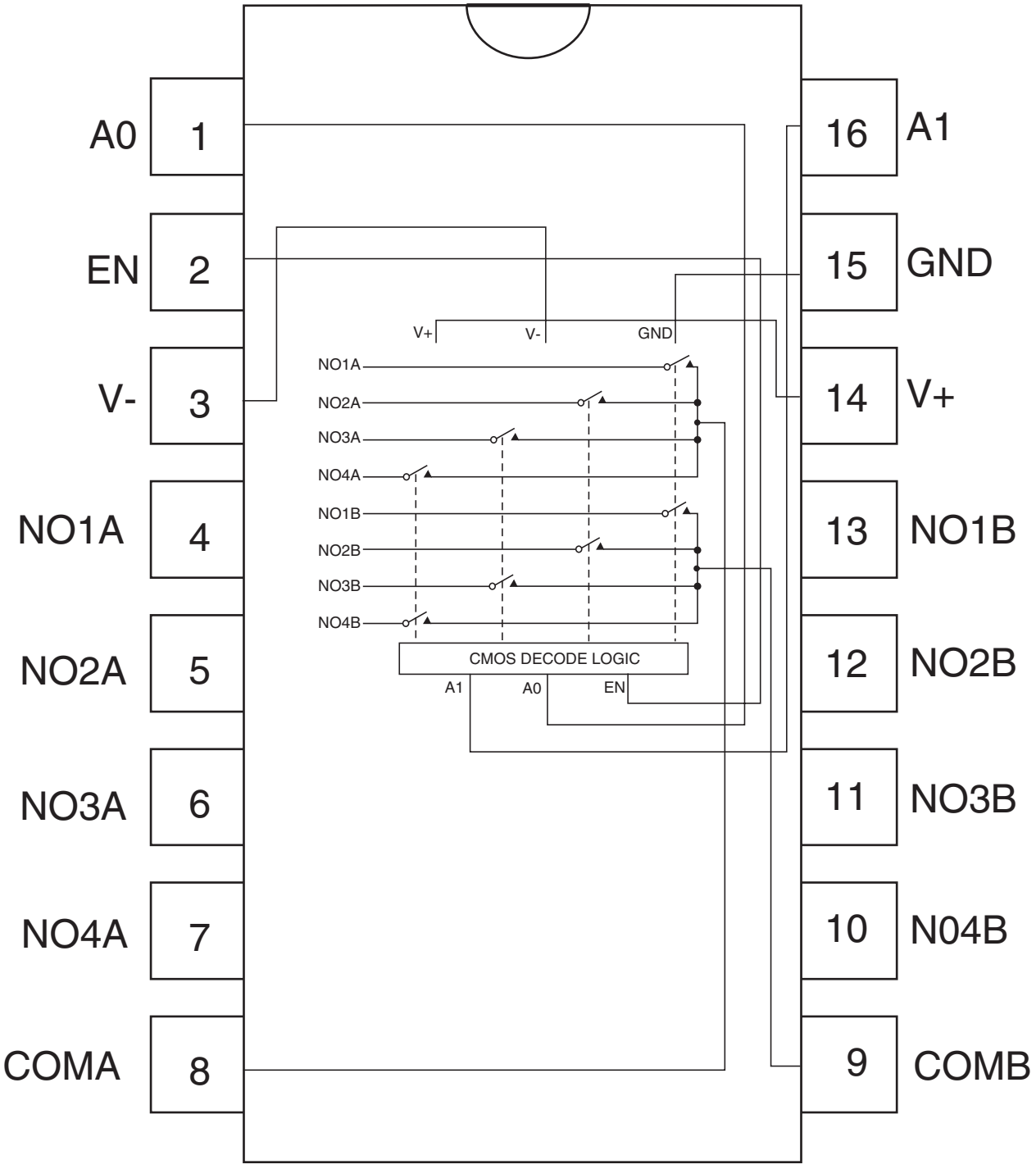


GM-7200M/XU/UC , GM-7200M/XU/EW , GM-7200M/XU/ES , GM-7200M/XU/CN



7.2 IC

*MAX309ESE



IC's marked by * are MOS type.
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

8. OPERATIONS

● GM-7200M/XU/UC , GM-7200M/XU/ES , GM-7200M/XU/CN

LPF (Low-Pass-Filter) Cut Off Frequency Control

You can select a cut off frequency from 40 to 240 Hz.

BFC (Beat Frequency Control) Switch

If you hear a beat while listening to an AM broadcast with your car stereo, change the BFC switch using a small standard tip screwdriver.

Gain Control

If the sound level is too low, even when the volume of the car stereo used along with this power amplifier is turned up, turn gain control on the front of the power amplifier clockwise. If the sound distorts when the volume is turned up, turn the gain control counter-clockwise.

- When using with an RCA equipped car stereo (standard output of 500 mV), set to the NORMAL position. When using with an RCA equipped Pioneer car stereo with max. output of 4 V or more, adjust level to match the car stereo output level.
- If you hear too much noise when using the speaker input terminals, turn the gain control counter-clockwise.

Bass Boost Control Switch

You can select a bass boost level from 0, 6 and 12 dB.

Power Indicator

The power indicator lights when the power is switched on.

Power Indicator

The power indicator lights when the power is switched on.

LPF (Low-Pass-Filter) Cut Off Frequency Control

You can select a cut off frequency from 40 to 240 Hz.

Gain Control

If the sound level is too low, even when the volume of the car stereo used along with this power amplifier is turned up, turn gain control on the front of the power amplifier clockwise. If the sound distorts when the volume is turned up, turn the gain control counter-clockwise.

- When using with an RCA equipped car stereo (standard output of 500 mV), set to the NORMAL position. When using with an RCA equipped Pioneer car stereo with max. output of 4 V or more, adjust level to match the car stereo output level.
- If you hear too much noise when using the speaker input terminals, turn the gain control counter-clockwise.

Bass Boost Control

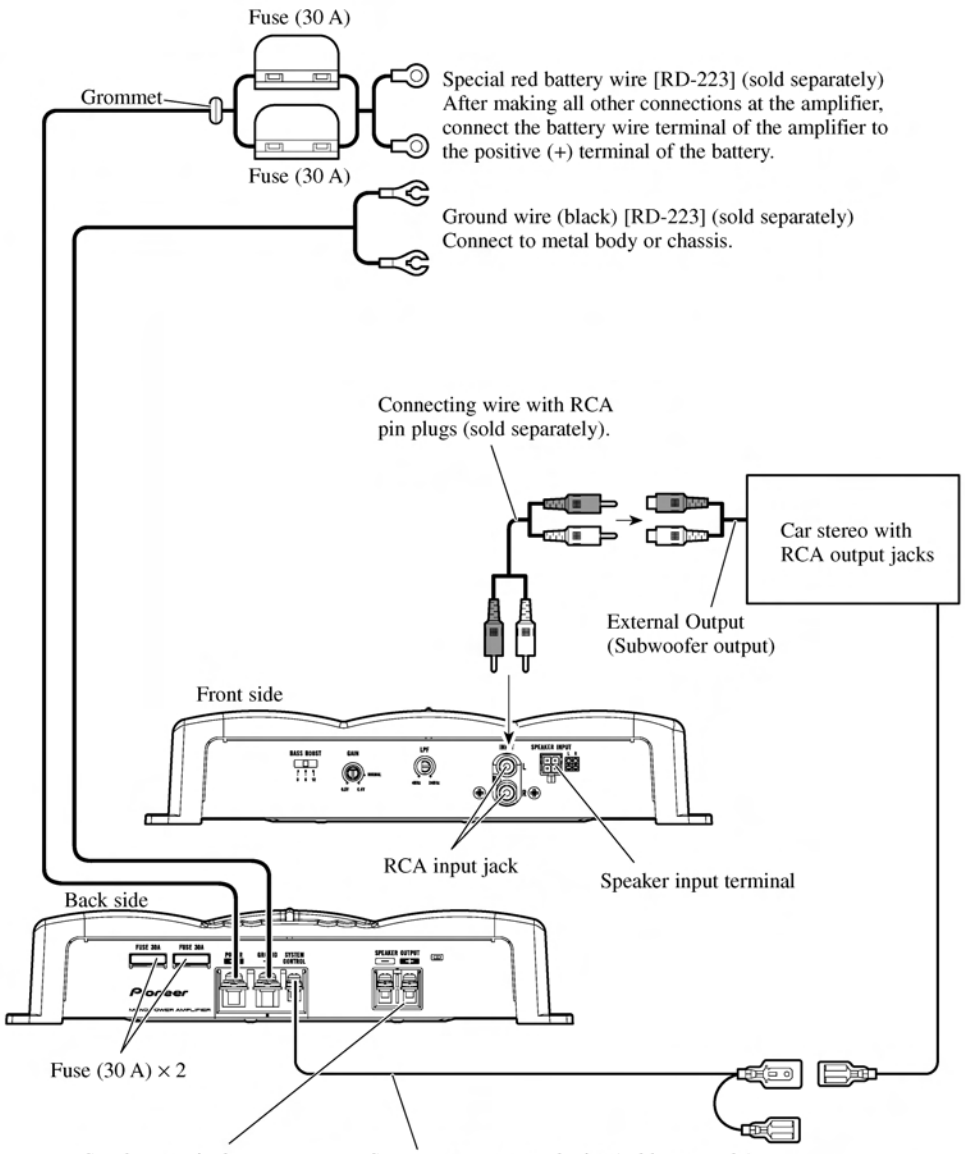
You can select a bass boost level from 0, 6, 9 and 12 dB.
For instruction of connecting the bass boost remote control to the amplifier, see the “Connection Diagram” section.

BFC (Beat Frequency Control) Switch

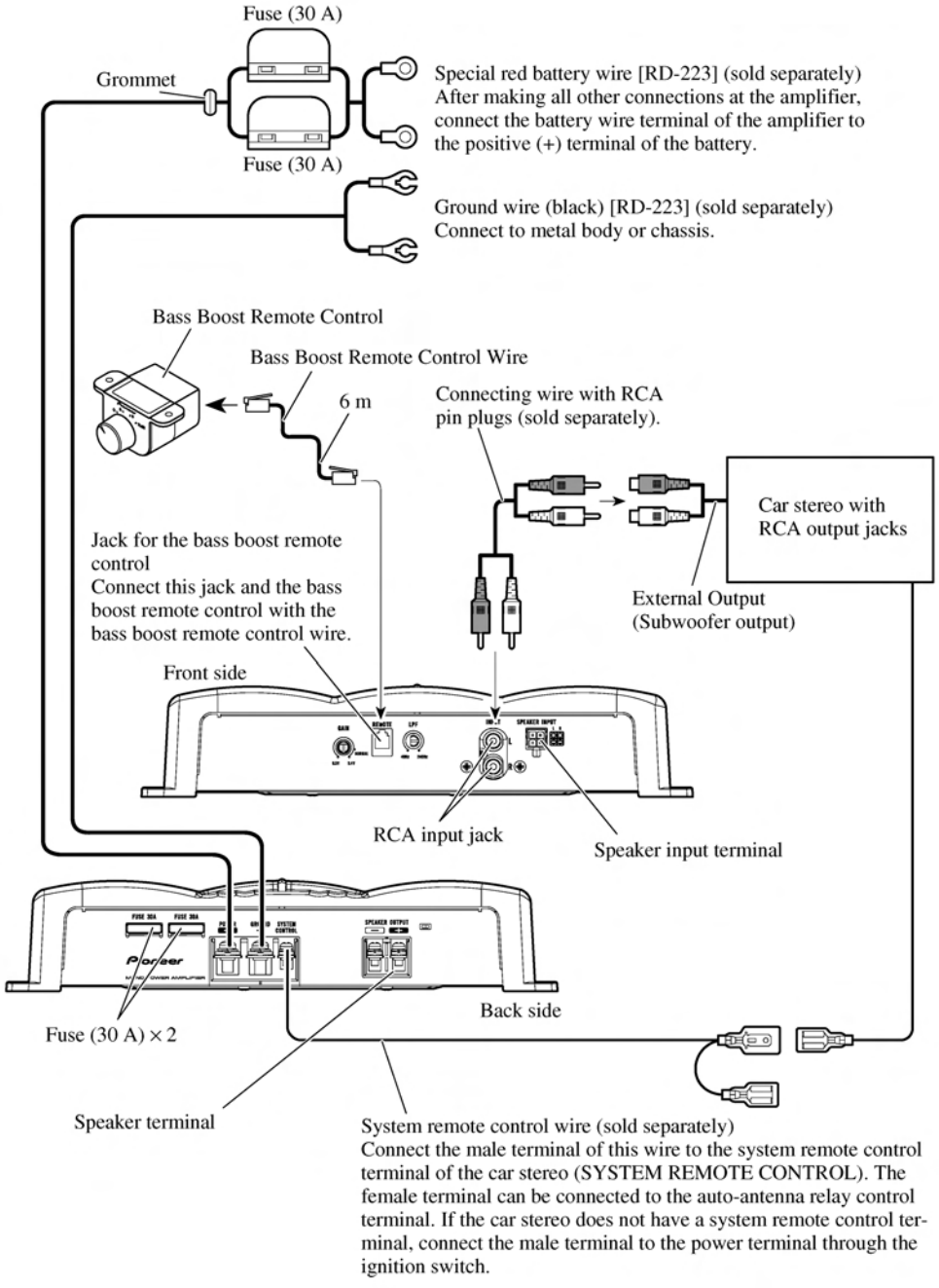
If you hear a beat while listening to an MW/LW broadcast with your car stereo, change the BFC switch using a small standard tip screwdriver.

● CONNECTION DIAGRAM

● GM-7200M/XU/UC , GM-7200M/XU/ES , GM-7200M/XU/CN

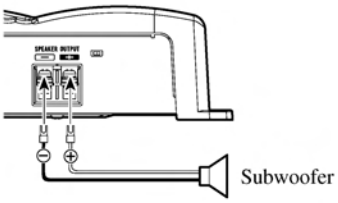

Fuse (30 A)
Grommet
Special red battery wire [RD-223] (sold separately)
After making all other connections at the amplifier, connect the battery wire terminal of the amplifier to the positive (+) terminal of the battery.
Fuse (30 A)
Ground wire (black) [RD-223] (sold separately)
Connect to metal body or chassis.
Connecting wire with RCA pin plugs (sold separately).
Car stereo with RCA output jacks
External Output (Subwoofer output)
Front side
RCA input jack
Speaker input terminal
Back side
Fuse (30 A) × 2
Speaker terminal
System remote control wire (sold separately)
Connect the male terminal of this wire to the system remote control terminal of the car stereo (SYSTEM REMOTE CONTROL). The female terminal can be connected to the auto-antenna relay control terminal. If the car stereo does not have a system remote control terminal, connect the male terminal to the power terminal through the ignition switch.

● GM-7200M/XU/EW


Fuse (30 A)
Grommet
Fuse (30 A)
Special red battery wire [RD-223] (sold separately)
After making all other connections at the amplifier, connect the battery wire terminal of the amplifier to the positive (+) terminal of the battery.
Ground wire (black) [RD-223] (sold separately)
Connect to metal body or chassis.
Bass Boost Remote Control
Bass Boost Remote Control Wire
6 m
Connecting wire with RCA pin plugs (sold separately).
Car stereo with RCA output jacks
Jack for the bass boost remote control
Connect this jack and the bass boost remote control with the bass boost remote control wire.
External Output (Subwoofer output)
Front side
RCA input jack
Speaker input terminal
Back side
Fuse (30 A) × 2
Speaker terminal
System remote control wire (sold separately)
Connect the male terminal of this wire to the system remote control terminal of the car stereo (SYSTEM REMOTE CONTROL). The female terminal can be connected to the auto-antenna relay control terminal. If the car stereo does not have a system remote control terminal, connect the male terminal to the power terminal through the ignition switch.

Connecting the Speaker Wires

Connect the speaker leads according to the figures shown below.



Using the Speaker Input

Connect the car stereo speaker output wires to the amplifier using the supplied speaker input connector.

- Do not connect both the RCA input and the speaker input at the same time.

■ Connections when using the speaker input